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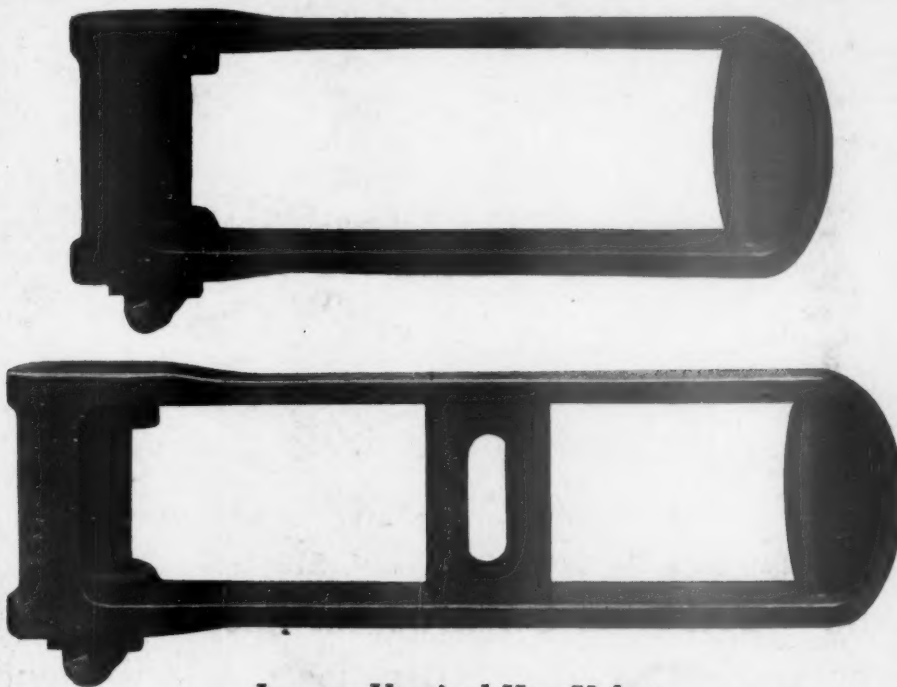
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EDITORIAL

Railway Age

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INDEXES TO VOLUME 72

The indexes to the last volume of the Railway Age are now ready for distribution. Those desiring indexes to this volume should kindly advise the New York office, 2201 Woolworth Building.

The omission of a small word frequently changes the meaning of an entire statement. The *Railway Age* in an editorial

Shop Crafts' Strike a Violation of Law in its issue for June 24 said: "For the employees whose wages are to be reduced to strike would not be a technical violation of the Transportation Act, but," etc. The statement should have

been: "For the employees whose wages are to be reduced to strike would not *only* be a technical violation of the Transportation Act, but," etc. There can be no question that the strike is a violation of law. Section 301 of the Transportation Act says: "It shall be the duty of all carriers and their officers, *employees* and agents to exert every reasonable effort and adopt every available means to avoid any interruption to the operation of any carrier growing out of any dispute between the carrier and the employees or subordinate officials thereof." The section then says that all disputes shall be, if possible, settled in conference between representatives of the railways and the employees, and concludes as follows: "If any dispute is not decided in such conference, it shall be referred by the parties thereto to the Board which, under the provisions of this title, is authorized to hear and decide such dispute." In this instance, after the Labor Board has given the shop crafts a full hearing and decided the matters in dispute, they have struck in an effort to accomplish the very purpose the law sought to prevent—that is, an interruption of transportation. The Transportation Act does not specifically provide any penalties for any violation of its labor provision except that requiring witnesses to appear and testify when subpoenaed. The violation of law involved in this strike is just as plain, however, as if all the strikers could be arrested and put in jail.

Personnel is conceded to be the most important factor in railroad shop production, but even an efficient, highly-organized personnel cannot accomplish satisfactory results when handicapped by inadequate shop machinery and equipment.

Back Up the Tool Committees There is no denying that literally thousands of old machines now used in railroad shops can readily qualify for the scrap pile and the recommendations of shop officials and tool committees regarding replacement of these machines should receive favorable attention. Recommendations of the tool committees represent the final and best mechanical department opinion which should be respected both as to the amount and kind of machinery purchased. Why discourage shop officials from developing improved methods by continually disapproving their requests for machinery needed in applying those methods? And why expect a shop once equipped to

run for years without further additions and improvements? Machine tool design is in a state of continual change, the tendency being always toward more powerful, accurate, easily-controlled and productive machines. Any business or industry failing to take advantage of modern machinery, fails to a proportionate extent in earning a maximum return for its stockholders. Railway purchasing agents are as a rule more capable and broadly experienced than those serving industrial plants but most of the former know little about machinery which they are inclined to think of in terms of price per pound. Price is of far less importance in the long run than a machine's productive capacity, adaptability to the work and the amount of work available for it. These factors are all given consideration by the tool committee. It is a mistake to ignore the recommendations of these experts and furnish another machine simply because of a few dollars difference in price.

As a result of the unfortunate accident at Winslow Junction, N. J., on July 3, it seems not unlikely that the high scheduled speeds of passenger trains between

The Element of Speed

Camden and Atlantic City may be the subject of some unthoughtful criticism. At the present writing, only meager press reports of the accident are at hand and it is impossible to determine whether or not the element of speed played any considerable part in the disaster. Attention should be called, however, to the fact that the Philadelphia & Reading and the Pennsylvania express train service between Camden and Atlantic City has few equals in this country when speed, comfort and safety, taken as a whole, are considered. The tracks of both railroads are excellent, of high standards of construction and maintenance. There are few curves and the lines are practically level. The equipment used in this service by both roads is of the best. The distance is short—less than 60 miles—and traffic is heavy. If there is any situation in the United States where high speeds may be safely scheduled it is here. Indeed, speaking generally, it would seem that these two railroads are to be congratulated upon the splendid services which they offer between the Jersey coast and Camden, whence ferryboats operate to Philadelphia. Passenger service in America, as a rule, is comfortable and safe and relatively fast. It is not as fast on the average, however, as the service in England. There are good reasons for this, of course. Travel in England is of much greater density than that in this country and the distances between cities are shorter. But between Philadelphia and Atlantic City the conditions are favorable to high scheduled speeds. With conditions as favorable as they are, the railroads would be remiss in their duty to the public if their scheduled speeds for express passenger service on these lines were less. Indeed, 40 miles an hour is doubtless a more dangerous speed in many places where it is prescribed than are the higher speeds on the Atlantic City lines of the Reading and the Pennsylvania. Speed as high as conditions of traffic, equipment and track justify is a factor in the service which railroads offer to passengers just as are comfort and safety.

"If due consideration is given to the fact that four years of constant training is necessary to produce a passable mechanic,

The Pillars of the Organization

we would say that the foreman who rarely sees any shop except the one in which he is employed and meets no mechanical men other than his daily associates, is not to be censured but rather to be praised for what he does accomplish." This quotation from an announcement of the convention of the General Foremen's Association, is commended to the higher officers for careful consideration. Nothing has demonstrated the importance of foremen more forcefully than the present strike. Loyalty of the rank and file to the road seems now to count for little, if it has not been entirely displaced by loyalty to the labor organizations. Under such conditions, the foremen are the pillars of the organization. This is true at all times; the strike merely serves to emphasize it. The emergency through which the roads are passing will accomplish some good if it brings home to the managements the necessity for standing back of the foremen with encouragement and support.

The Matter of Statistics

THE RAILWAYS and the Interstate Commerce Commission are again discussing the matter of the Interstate Commerce Commission's statistical requirements. This question as it relates to both the Interstate Commerce Commission and the state commissions is an old one and has been recurring in one form or another for many years. The general impression is that the commissions require too much statistical data and that the reports are so extensive that their compilation represents a heavy financial burden upon the carriers. There is, no doubt, a great deal of truth in this opinion, but there are so many extenuating factors that the question is not a simple one. The chief of these factors is, of course, that the railways require accounts and statistics for purposes of management and many carriers find it advisable to compile for their own purposes data of one kind or another in addition to that required by statute or by commission regulation.

Attention has been directed from time to time to the large increase in the number of railway clerks and in their compensation, which increases are somewhat out of proportion with the increase in the number of other employees, the compensation of other employees, the amount of traffic handled, or the revenue therefrom. Of course, there are many reasons contributing to the increase in the number of clerks. Among them is the fact that today many employees are designated as clerks who in former times were reported under some other designation. Federal control, the valuation act, the guaranty period, rate cases, discussions before the Labor Board, etc., have further necessitated the compilation of all kinds of material and thereby increased the number of clerks engaged in that kind of work. Another and not an unimportant factor is the increasing proportion of l.c.l. freight, the accounting costs on which per dollar of revenue are much higher than on carload freight.

The question is in the hands of the railways through the Association of Railway Executives and through the submission of the question to the Railway Accounting Officers' Association. The accounting officers have appointed a special committee, headed by E. M. Thomas, comptroller of the Chesapeake & Ohio, which is discussing the matter for the association and for the railways with the Bureau of Statistics of the Interstate Commerce Commission. The reference of this important question to the Railway Accounting Officers' Association is a compliment to that body. The able analysis of the situation as presented by President J. J. Ekin of the association in his address before the opening session of the accounting officers meeting in Cleveland on June 7 (*Railway Age* of June 17, page 1485) is assurance that the matter

is in able hands. The accounting officers at their annual meeting put themselves plainly on record as advocating simplicity in accounting and direct, practical and usable statistics.

There is unquestionably a great deal of work that can be done in this matter of statistical requirements. It is something in which railroad officers in all departments of railway work are interested, the operating department, of course, being primarily interested. It will be borne in mind, however, that the operating statistics which are at present being required by the Interstate Commerce Commission on the O. S. forms are in the case of most roads but a small proportion of all statistics which are compiled concerning operation. Many roads have come to the conclusion that they need rather elaborate statistical reports to check up their own affairs and there are many columns in these reports which do not appear in the figures required for submission to the Interstate Commerce Commission. On a great many roads statistics have grown up much like "Topsy." There are too many instances in which the compilation of statistics has been begun for a definite purpose but which purpose after a time has disappeared, notwithstanding which the figures have been continued. These are factors which must always be borne in mind in discussing this matter of commission requirements.

There is presumably much ground for the argument that the Interstate Commerce Commission does require much statistical material which is not urgently necessary. One is told from time to time of masses of statistics which are requested but are apparently not used. The commission must apparently also plead guilty to a charge that there is not a complete co-ordination of the statistics that are furnished the various bureaus. On various occasions one or another bureau of the commission has required the carriers to compile information already in the files of some other bureau. The commission, for one purpose or another, frequently has to call on the carriers for special reports or special studies. These are sometimes quite costly. The commission presumably gives the question of cost serious thought before issuing such requirements. Whether it gives the element of expense sufficient consideration on all occasions is, however, a question. The matter of co-ordination is an important one not only as between the bureaus of the Interstate Commerce Commission but as between the I. C. C. and the state commissions. There is much room for improvement in the present situation whereby different reports covering the same ground are required for submission to the different regulatory bodies.

In addition to considering the matter of statistical requirements the Interstate Commerce Commission, with the co-operation of the Railway Accounting Officers' Association, has undertaken a revision of the various accounting classifications, the first one to be revised being that of operating expenses.

The work of revising the statistical requirements of the commission logically begins with the revision of its classifications, and we strongly suspect that both the feature of revising the classification and revising the statistical requirements will be merged and worked out in accordance with a definite plan embracing both accounts and statistics. The operating expense account should state clearly the cost of performing the transportation service separated into the elements of payroll, material, fuel and miscellaneous. These accounts together with physical statistics, both operating and traffic, should form a basis reflecting the actual operation of the property and affording a comparison with other periods and with other roads, from which proper deductions and conclusions may be reached. The object of statistics is to establish facts and the first and primary object of these facts is their use. The first test for statistics should be their utility. It is axiomatic that no statistics should be compiled unless they serve a useful purpose.

As we see it, railway accounts and statistics should be compiled for use by four classes of users. The management, the regulatory bodies, the investor and the public. Insofar as concerns the management, they will be used as an aid in operating the property in an efficient and economical manner. The Interstate Commerce Commission should be furnished with them monthly and annually in summary form so that they may afford a guide or yardstick to the commission in determining whether the properties have been efficiently and economically operated. The investor needs them to the end that he may be enabled to invest his capital with a proper degree of judgment. The public's interest lies in the necessity that it be given the facts in order to be able to form an intelligent opinion upon the broader aspects of railway welfare.

It is to be sincerely hoped that the Interstate Commerce Commission and the Railway Accounting Officers' Association, when revising the classification and statistical requirements, will have in mind that what is desired by all concerned is a clear, direct and honest statement from month to month and year to year of railroad operations as reflected in the accounts and statistics prepared and published from time to time.

Permissive Feature Omitted from Automatic Stop Specifications

THE INTERSTATE COMMERCE COMMISSION has seen fit, in its final order requiring installations of automatic train control, to omit the "permissive" feature in the specifications for automatic stops as originally adopted jointly by the A.R.A. Committee and the Commission's Bureau of Safety. This was in paragraph *b* which would allow an automatic stop to be installed so that it would be "under control of engineman, who may, if alert, forestall automatic brake applications and proceed." This was to be expected after certain questions were framed by the commissioners during the hearing, apparently for the purpose of placing in the records answers which would indicate that such a provision was dangerous and that enginemen as a class could not be trusted to perform their work faithfully and conscientiously. It is well known that all of the companies having devices of merit can meet the conditions imposed by the specifications in the Commission's order, but we still believe that for the good of the art this paragraph should have been inserted in the final specifications; or, in lieu of that, that railroads desiring to use devices operated on the permissive principle should have been allowed to do so.

As the specifications now stand it appears that a premium is placed by the Commission on the use of speed control. This may be compared to a contractor trying to erect a building by attempting to construct the top floors first. In the development of any device it is desirable to start with the simple fundamentals first, as then, under service conditions, other features which prove necessary or desirable can be added, eventually approaching the ideally constructed device for the use intended. Speed control has not been used in steam railway service on an extensive enough scale or under all operating conditions for a sufficient period to warrant putting on it the premium that the Commission does in its desire to obtain absolute safety. The Commission apparently takes no account of the fact that a device may be made so "safe" that it will prevent trains from getting over the road. Safety with dispatch should be the goal sought.

As a matter of fact, it would appear the Commission has "strained at a gnat and swallowed a camel." While it has omitted paragraph *b* for considerations of safety, in paragraph *c* under "Automatic Train Control or Speed Control" it allows of a medium speed restriction which requires the train speed "to be below a prescribed rate when passing a

caution signal or when approaching a stop signal or a danger zone in order to forestall an automatic brake application." Is the absolute safety sought obtained if a train running under a medium speed restriction can be automatically allowed to pass a stop signal? If enginemen as a class cannot be trusted to operate a permissive automatic stop feature what is to make them take action to handle their trains properly at a stop signal under such a provision? The engineman may be dead; or even if he is alert, he may, owing to fog or storm, slip by such a signal with disastrous results. How can elimination of the one feature and provision for the other in the same specification be justified?

The railroads are no doubt at fault and must bear part of the responsibility for the provisions in the specifications because, before train control was studied intensively by them, they adopted what were considered theoretically ideal requisites which appeared to be framed to discourage the development of the art. After more thorough study and investigation they are now inclined to change their views as to what is desirable. We believe that, like other safety devices, automatic stops and train control, if developed along right lines, will not only increase safety but will prove to be of material benefit in train operation; but they must be developed along proper lines if they are to be a success. Therefore, railroads that desire to use a simple automatic stop with the permissive feature should not hesitate to seek authority from the Commission to do so; and the Commission should be willing to allow wide latitude in the development of the art in order that greater safety may not be secured at the cost of serious interference with train operation.

The Real Issue in the Strike

THE STRIKE recently begun by certain railway labor unions puts the labor provisions of the Transportation Act to the first real test to which they have been subjected. Temporarily the labor provisions have "broken down." Their main purpose was to prevent strikes. In this instance they have failed to accomplish that purpose.

The situation created is quite different from that brought about by the switchmen's strikes in 1920. Those strikes occurred before the Railroad Labor Board really had begun to function, and were not ordered or authorized by recognized and well established labor unions. The present strike has been ordered by the heads of recognized and well established labor unions after full hearing and decision by the Labor Board regarding the matters in controversy. It is a revolt by the labor unions against working conditions and wages which the Board has held to be reasonable.

One of the grounds assigned for the strike is the system of contracting work adopted by some railways; but only a small number of the railways have contracted work, and following the Board's decisions condemning this policy practically all of them have agreed to abandon it. The contracting of work is, therefore, merely a pretext and not a real reason for the ordering of a strike on all the railways.

The strike might conceivably have either of two outcomes. It might result in the unions being beaten and the employees being required to return to work on the terms the unions have rejected; or it might result in the unions triumphing and the railways being forced to grant working conditions and wages different from those the Board has awarded.

The former outcome would be a victory not only for the railways, but also for the method of settling labor controversies which has been established by the government. It would result not only in the strikers losing their wages while they were out, but also probably in many of them losing seniority and pension rights and other rights and privileges which have been of value to them. The effect of such an outcome would be to vindicate the provisions of the Transportation Act and the decisions of the Railroad Labor Board,

to strengthen the Labor Board's position and increase its prestige, and to make unlikely important strikes in defiance of the law and of the Labor Board's decisions in future.

It is equally plain what would be the effects of even a partial victory by the labor unions. If by their strike they should gain any working conditions or wages which from their standpoint were more favorable than those awarded by the Labor Board, this would convince them and other railway labor unions not involved in the strike that they had more to gain by striking than by submitting their claims to the Labor Board and accepting its decisions. This would speedily result in the destruction of the method and machinery for peacefully settling railway labor controversies which have been established by the Transportation Act. Organized labor naturally is going to adopt that policy by which it thinks it can gain the most. Even partial success for the labor unions as the outcome of the present strike would mean the substitution of open warfare between the railways and their employees for hearings and decisions by the Labor Board as the usual method of settling railway labor controversies.

B. M. Jewell, head of the shop crafts' unions, says it is the railways' "next move." This is not correct. The "next move" is the public's, through its government. The public either does not want railway labor controversies settled by the methods and machinery it has established, or it does want them so settled. If it does not want them so settled it should at once repeal the labor provisions of the Transportation Act. This would be an announcement by the public that it desires the railways and the labor unions to settle their controversies by conferences or strikes and lockouts as such differences are settled in other industries. The managements of the railways would be no more fearful of the outcome of negotiations or struggles with the labor unions under these conditions than are the managements of other kinds of business concerns. Furthermore, they would be relieved of certain serious handicaps with which they are now burdened. They would not be required, for example, to operate under working rules much more restrictive and wages much higher than those in other industries as they have been recently. Each railway would then be able to make the best terms it could with its own employees instead of all of them being obliged to accept practically uniform terms established by a government body.

On the other hand, if the public prefers the method of settling railway labor controversies now established by law, and the results of which, except in few and isolated cases, public sentiment has compelled the railways to accept, then it plainly is for the public through its various government officials and bodies, particularly the Railroad Labor Board, to take the leadership in fighting this strike to a finish. It may be assumed with practical certainty that the railways will neither make any overtures to the labor unions that have caused this strike, nor pay attention to any overtures from them. For their own reasons, and regardless of the future of the present system of government regulation of labor controversies, they cannot afford to concede a jot to the strikers that has not been conceded to them by the Labor Board's awards.

The real issue presented is whether the labor unions involved will be allowed to flout a law passed by Congress and defy and destroy a governmental agency established by the public through Congress to carry out that law. The public and the government must determine that issue. The strike is not one against what the railways have done, but against what the government has done. The American people must either stand fast and their government must adopt measures which will completely defeat this strike, or witness the certain destruction of the means for peacefully settling railway labor controversies which the public by its government has established.

Letters to the Editor

A Few Terminal Suggestions

St. Louis, Mo.

TO THE EDITOR:

It is my opinion that, with few exceptions, no locomotive weighing more than 70 tons should be employed in a terminal. I hold this view because of the fact that there is more danger of damage to equipment and lading where the heavier locomotive is used, and at the same time greater delays occur to freight because of the practice of waiting for the accumulation of large trains before attempting to move them. Where small locomotives are employed frequent deliveries are necessary, and these frequent deliveries reduce the delay in moving traffic through the terminals.

I also think that many cars are too large. Too much power is employed in pulling empty car space around the country. With smaller cars less damage would result to them and to their contents because the shock in switching would be less severe.

One reason for the great increase in the payment for damages to cars and contents in recent years has been the intensive loading in over-large box cars, for the larger the cars and the more intensive the loading, the higher are the damage claims. There is some question regarding the economy of intensive loading. Since this campaign was started the number of claims for damages has increased greatly, while this campaign has also led to a great deal of indiscriminate loading which also contributes to damages.

Some of the railways are now experimenting with containers on flat cars for the handling of merchandise. While I believe that this will be a success, there is a still further step which could be taken, namely, the adoption of a different type of car altogether; a smaller car which could be made rain-proof and theft-proof, which could be transferred from railway car trucks to automobile trucks; could be run in on a depressed track and unloaded from that point with a derrick which would lift the lid off the car and unload in much the same manner as the hold of a vessel is unloaded. Such a car could be loaded more compactly and thus be able to stand the ordinary shocks of transportation better.

I also believe that too many loads are being transferred in the terminals. If it is possible to get a shipment through in the original car it should be done. Some roads are now transferring cars in large terminals to save per diem. More or less damage and loss is incurred invariably when these transfers are made.

Another thing which is needed in large terminals is that all freight shall be inspected and loaded as carefully as explosives, inflammables and acids are now handled. There is no apparent reason for all loading not receiving the same supervision, for the loss in claim payments would more than pay for it. The day will come when a shipper will have to furnish a certificate to the railroad for every package he ships. He now has to do this for explosives, inflammables and acids and there is no reason why he should not do it with flour, food stuffs and other shipments susceptible to damage.

There are also too many repair tracks in large cities. This work could be done cheaper and better on fully equipped zone repair tracks where the roads could employ a better class of men, install better methods of bookkeeping, and maintain supplies of the various parts of different cars. The existence of so many repair tracks creates a tremendous waste on account of the crude methods which are required at these outlying repair tracks.

A SUPERINTENDENT.



The Labor Board in Session on Strike Issue—P. & A. Photo

Shopmen Begin First General Strike on July 1

A. F. of L. Leader Defies Labor Board Which Replies by Issuing Call for New Organizations

JULY 1, 1922, will go down in railroad history as a momentous day for then began the first nationwide strike of railroad employees, accompanied by a \$400,000,000 rate reduction, a \$135,000,000 wage cut and a traffic revival which, were it not for curtailed coal loading, would be practically equal to the volume of traffic in the record-breaking months of 1920. Of these First of July developments, the strike of shopmen and the threatened strike of maintenance of way, clerical and signal employees and stationary firemen and oilers, are holding the center of the stage.

The last two issues of the *Railway Age* contained details of the threat of a nationwide strike of those classes of employees affected by the Railroad Labor Board's recent decisions fixing new rules and working conditions and cutting wages. The story ended in the last issue with the "ultimatum" sent by B. M. Jewell, president of the Railway Employees' Department of the American Federation of Labor, to T. DeWitt Cuyler, chairman of the Association of Railway Executives, and promising a strike of the shop crafts unless the railroads agreed to refrain from applying the Labor Board's rulings on wages and certain working rules and to do away with the contracting of repairs.

J. W. Kline Issues Call for Strike on July 1

The order for a strike of shopmen on July 1 in protest against the wage reduction recently authorized by the Labor Board, against the changes in overtime rules which were made some time ago by the same body and against the practice of certain railroads in contracting for the operation of repair shops, was sent out on June 28 by J. W. Kline, who is president of the International Brotherhood of Blacksmiths.

"In compliance with the strike vote," the telegraphic order read, "all shop craft employees below the rank of general foremen are hereby granted sanction to suspend work 10

a. m. July 1 on all railroads and Pullman shops in the United States."

The direction of the strike was delegated to W. P. Johnston of the International Association of Machinists.

Carriers Reply to Jewell's "Ultimatum"

By coincidence, a meeting of the member roads of the Association of Railway Executives had been called some time previously for June 29 at Chicago to consider express contracts. Naturally, Mr. Jewell's ultimatum to Mr. Cuyler came up for consideration with the result that the following reply was drawn up, unanimously approved by the executives present and forwarded to Mr. Jewell over Mr. Cuyler's signature:

Your telegram conveys, on behalf of the shop crafts an ultimatum that, unless the carriers turn their backs on the Railroad Labor Board and its recent decision, and accept your terms, the employees on behalf of whom you speak will on July 1, resort to force in the shape of a strike and will attempt to interrupt the orderly processes of transportation on which the business, comfort and welfare of the American public depend. Meanwhile, before consideration could be had and this reply sent, the public press carries today the announcement that you have actually issued your strike order effective 10:00 a. m. July 1.

It is impossible within any reasonable limit of space to single out and reply to all the erroneous and misleading statements contained in your telegram. Suffice it to say there has been and is nothing in the conduct of the carriers to justify the act which you notify us you are about to commit. There can be no question about the facts.

The facts are that the terms on which in your telegram you insist, have been duly and fully presented to the Board. That Board has patiently heard the evidence on which you rely to support your demands, as well as that offered in opposition, and have listened to and duly considered your arguments in support of your position. You fully participated in this lawful arbitration and had your day in court.

The Board in this hearing decided against you and rejected the demands which you now insist that under penalty of a strike

we shall accept, and rendered a decision fixing the wages which in their opinion are just and fair under the circumstances.

In the spring of 1920 the Board heard the demands of labor for an increased wage, and in July of that year granted an annual increase which in its ultimate application amounted to approximately \$700,000,000, making its decision retroactive for four months. The carriers loyally accepted the decision and paid the increased wage.

You demand now that we accept your decision and reject that of the Board. You are clothed with none of the power or authority of organized government. The Board is a creature of the United States statutes, is a part of the government to whom all good citizens hold loyalty and allegiance, and in what it has done in the matter of which you now complain has been performing a function expressly delegated to it by Congress. To submit now to your demands and to reject the decision of the Board would be to recognize your power and authority as greater than that of the government.

The consequences of the rejection of this constituted governmental authority and obedience to your invisible and irresponsible power would be to continue a charge on the producing and consuming public for transportation in excess of that which the government, through its Board, has now declared to be just and fair. This unjust burden shall not be put upon the public by a surrender on our part to your threat of force.

If the just authority of the government is to be successfully defied and the government is to be rendered helpless to protect its citizens in their peaceful and lawful pursuit, if patriotic and loyal obedience to government authority is to be denied, the act and the responsibility is to be yours. It shall not be ours. If you strike it will be against an order of a governmental tribunal—it will be a strike against the government of the United States.

Labor Board Calls Inquiry

Simultaneously with the dispatch of this telegram to Mr. Jewell, federal intervention was announced in a citation ordering the heads of the organizations threatening to strike and the executives of all of the Class I railroads to appear before the Board on June 29 for an inquiry into the "threatened interruption of traffic." This action was taken under Section 313 of the Transportation Act which gives the Board the right to initiate hearings to determine whether or not there has been a violation of any of its decisions. The citation named a number of carriers on which it is alleged certain work has been contracted in violation of the Board's decision and specifically requested the executives of these roads to be present. It was expected at this meeting that the procedure followed by the Board last October when the train service organizations were threatening to strike would be followed again to bring about the recall of the strike orders which were already out and the end of the threats being made by the other organizations. However, indications of the partial failure of this move became apparent the following morning with the receipt of a letter at the Board's office from Mr. Jewell intimating that he had changed his mind about answering the Board's call and instead of attending "under protest" that he might not be present at all.

Jewell Objects to Board's Investigation

His communication, addressed to the chairman of the Board, read in part:

I assume that a similar telegram (the Board's citation) has been sent to the executives of the shop craft organization. They are engaged in doing all in their power in behalf of an orderly and peaceable suspension of work on the part of those employees who expect to act upon the sanction to suspend work granted by these executives in compliance with the almost unanimous vote of the crafts. It appears to me that the result, even if not the purpose of the telegram and the proposed hearing, would be a confused and disorderly strike movement lacking authoritative control and almost inevitably resulting in a mob-like action which would be pregnant with grave possibilities which it is the chief desire of the executives of the organizations of employees to prevent and which it has been far too often the obvious desire of employers to incite.

In protection of the public interests in law and order and in conservation of the railroad industry and in aid of the disciplined conduct of half a million men under trying conditions, permit me to urge that no action be taken at the present time which would deprive the railroad employees of the immediate counsel and guidance of their chosen representatives.

A discussion of the right of the Board to institute such an investigation under Section 313 followed, Mr. Jewell contending that while this section applied to the carriers it did not apply to the employees because their conviction that "they cannot afford to continue to render service under the wages and working conditions fixed in a decision of the Board" does not constitute a violation of the Board's rulings. Mr. Jewell then continued:

A compulsory limitation upon the right to control one's own property, "may well be within the power of our government because all rights of property are creations of law. But a compulsory limitation upon the right to control one's own labor is not within the power of the government, because this right is a natural right and is protected by the Thirteenth Amendment of the Constitution of the United States which provides that involuntary servitude shall not exist within the United States. Therefore, Congress



Photo by Underwood & Underwood

Strikers Walking Out of the I. C.'s Burnside Shops, Chicago, on July 1.

did not and cannot grant authority to anyone to impose terms and conditions of labor upon the employees of the various transportation systems which these employees individually or collectively refuse to accept.

After quoting numerous passages from the Congressional Record purporting to show the views of the framers of the act at the time of its passage, Mr. Jewell continued:

It is also respectfully submitted that the Board being an administrative arm of the government should not take upon itself the authority to extend its own power or to issue any orders attempting to coerce men into non-acceptable employment, thus forcing them into involuntary servitude.

If the Board, by its direction in its telegram of June 29 to the effect that the status quo be maintained on all roads until the conclusion of its hearing means that the Board has entered an order suspending operation of its decision, such suspension of operation of decisions should be clearly and unmistakably expressed. If, however, it is the intention of the Board to direct the employees of the railroads to remain at work under non-acceptable wages and working conditions, such order is void both because it is not within the powers of the Board and because it is a violation of the Constitution of the United States.

A similar letter expressing practically the same views was received by the Board from Timothy Healy, president of the International Brotherhood of Firemen and Oilers.

Chairman Hooper Outlines Board's

Views on Threatened Strike

The attitude of the majority on the Board at this time was reflected in a statement made by Chairman Hooper in which he declared that the Board made no mistake in its decision and intimated there would be no change in its opinion at the inquiry to follow. Chairman Hooper said:

The people of the United States are sick and tired of having railway transportation and traffic periodically interrupted by con-

troveries between railway managements and employees. It was this feeling which moved congress to enact the Transportation Act.

The right to strike and tie up a private business is quite a different thing from any supposed right to choke and obstruct the flow of interstate commerce in this vast continental nation. Railway transportation is not a private business. It is essential to the very existence of our republic and to the individual well being of every citizen.

It is evident to every student of the situation that the railway labor organizations have no just cause for serious complaint at the treatment they have received at the hands of federal wage tribunals during the war period and since.

The wages fixed by the recent decisions of this Board will purchase more than the wages received by them prior to the war. In other words, their wages have increased by a greater percentage than has the cost of living. In some instances the increase is strikingly notable.

With but slight exceptions the great carriers of the country have paid the wages fixed by the various succeeding government tribunals. Now that decreases have come the employees should be good sports and accept the reductions.

If a change in conditions should at any time justify increased wages this Board will most cheerfully respond to the situation. Moreover, if it should at any time be made to appear to the Board that any injustice has been done to any class of employees by any rule or wage decision, under a continuation of present conditions, it would be the duty of the Board to correct such mistake.

Let it be understood, however, that the Board is convinced at this time that it has made no mistake and committed no injustice of any noteworthy magnitude in its recent decisions on rules and wages. The Board has endeavored to conform to the requirements of the law and has established a schedule of wages higher than those prevailing, as a rule, in other industries. It is useless to repeat statistics on this subject.

The employees do have one substantial grievance against certain of the carriers, and that is the contracting of railway employment to so-called independent contractors. This is not simply a labor grievance, it is a public grievance. This policy carried to its legitimate end destroys the labor article of the Transportation Act, treats the United States congress with contempt, deprives the

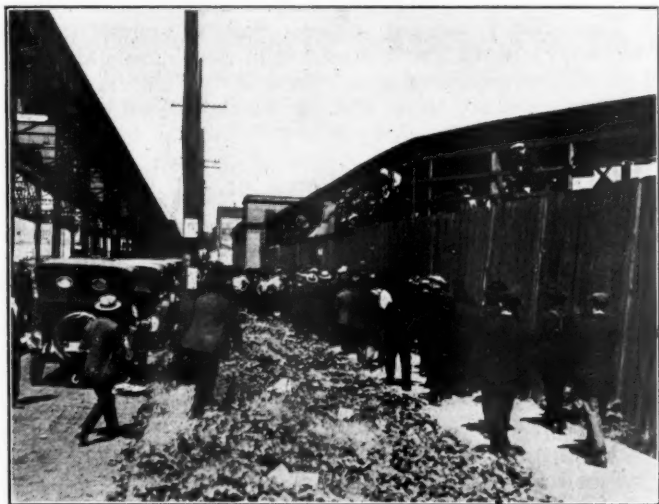


Photo by Underwood & Underwood

Striking Employees of the C. & N. W.'s Fortieth Street Shops, Chicago, Going to a Strike Meeting in a Ball Park

public of lawful protection from railway labor troubles, and grievously imposes upon the employees.

Neither need have any fear that the public will permit injustice to be done to them by the Railroad Labor Board. If the Board does not effectuate a substantial degree of justice both to the carriers and the employees, it will be wiped out by congress.

Inquiry Opens Without Shop Crafts' Leader

When the time for the opening of the Board's inquiry arrived, it became apparent that Mr. Jewell would follow out his intimated defiance of that body for neither he nor his assistants were present. After a wait of almost an hour the Board filed into the room, the chairman bearing subpoenas for Mr. Jewell and Mr. Healy. Both were issued.

The inquiry began, nevertheless, with the partial elimination of one of the grievances which the labor leaders contend was a big factor in producing the "overwhelming vote" to strike. Chairman Hooper launched an inquiry as to the attitude of the railroads on the subject of contracting, meeting with an immediate reply from A. B. Ramsdell, assistant to the vice-president and general manager of the Chicago, Rock Island & Pacific, who said:

"The Rock Island made the announcement this morning that it did not at this time or at any future period expect to contract out their labor for car repair work, has not been in the habit of doing so and we felt we were wrongly charged and wrongly classified on the docket. It is not the carrier's purpose to farm out or contract its labor."

Marvin Hughitt, Jr., vice-president of the Chicago & North Western, likewise replied, "We have been obeying all the decisions of the Board and do not understand why we have been cited here."

The chairman announced in turn that the Southern Pacific, the Atchison, Topeka & Santa Fe and the Boston & Albany, had already announced their intention of refraining from contracting out their labor and that the Cincinnati, Indianapolis & Western had telegraphed, "in the interest of harmony we will acquiesce in any decision you may make in our case relating to the shop contract matter." Similarly W. R. Seaton, general attorney of the Pere Marquette, announced that that carrier had withdrawn from the contracts for the operation of shops and for coach cleaning.

E. F. Grable Questioned on

Threatened Strike of M. of W. Employees

E. F. Grable, president of the United Brotherhood of Maintenance of Way Employees and Railway Shop Laborers, under examination described the strike ballot issued by that organization, its contents, the manner of its distribution, and the laws of his organization relating to the calling of a strike.

"The calling of a strike or the calling for a ballot to be put out comes from the system division in our organization," Mr. Grable testified. "The president is empowered to sanction the strike after a representative vote has been received and a majority vote in favor of it."

Mr. Grable testified that the organization sent out approximately 650,000 strike ballots, that his total membership was approximately 200,000, that the latest check of the returns show that approximately 228,000 strike ballots have been returned and that approximately 55 per cent of these ballots had already been tabulated, the big majority being in favor of striking on the wage reduction issue, the only one included in the ballot. In reply to a question of R. M. Barton, a member of the public group on the Board, Mr. Grable stated that he had refrained from sending out any instructions or literature to influence the vote one way or another.

In explaining the vote, Mr. Grable said:

The reason for such a heavy vote in favor of striking is not entirely indicated by the ballot. Prior decisions of this Board are not being carried out properly by the carriers, decisions of the Board being ignored on some properties in their entirety, rehearings had and decisions not yet carried out or applied. The contract labor proposition which arbitrarily reduced maintenance of way employees, rates of pay, the matter of the eight-hour day which some properties are trying to make the ten-hour day as a regular proposition—all those things influenced the vote in favor of a strike. These things have caused the unrest, dissatisfaction and all the other terms you may care to apply to it, among the employees in our department on all properties. The executives of our organization have been severely criticised for months because we used our influence with the membership to go along with these things with a view that in the near future the proper result would be obtained from this Board.

If we understood this call from the Board to mean that these matters would be held in status quo for the time until this matter was gone into, our organization assured that further hearings would be entertained on increases in answer to our request and some sort of assurance given that they see as we do at this

moment, that the factors determining wages have changed materially since this case was filed and the evidence was presented—in favor of increases in wages rather than the decreases that were given us—our attitude might be different.

After mentioning in addition the upward trend in the cost of living and the alleged injustice in the failure to apply the wage reduction to supervisory forces, Mr. Grable continued:

These are the things that made the ballot come in as it has and these are the things that if we had definite and concrete assurance on, as president of the organization I would use my influence with the other officers and the membership accordingly.

Chairman Hooper Reassures M. of W. Leader

In reply to Mr. Grable's remarks about the increase in the cost of living, Chairman Hooper said:

Do you think it would be worth anything to your organization and to the members of it to know that if the evident present trend of cost of living continues upward in such a degree as to render an increase in wages just and reasonable, that this Board would just cordially take that matter up and consider that trend of conditions as it considered the contrary at the time of its decision?

Mr. Grable replied that it would be very helpful and Chairman Hooper proceeded to state the assurance more specifically in the following language:

The Board would like for your organization to understand that at any future time whenever conditions of that sort (an increase in the cost of living) become of sufficient importance and of such an appreciable character, you can predicate a request for an increase in wages on them and come with a reasonable plea of that sort to this Board, you should know and your organization should know, that this Board will as cordially give you an increase as it gave you the decrease and do it because it would be its sworn duty to do it under the Transportation Act.

Twenty-three Cent Wage Fiction

Answered by Board Chairman

Chairman Hooper spoke at length on the misunderstanding and misstatements which are so prevalent in the discussion of the Board's decisions and their effect, citing as an illustration the 23 cent minimum wage fiction widely heralded as the rate of pay for all common labor in the maintenance of way department. He said:

The labor organizations complain a great deal about the unfairness of the press. I noticed one week in your paper "Labor" a statement accompanied by a cartoon to the effect that there were more than 100,000 men of the common labor class put on the 23 cent minimum wage by Decision 1028. That same statement was repeated in the issue of the following week and yesterday a congressman of the United States repeated it on the floor of Congress and put it in the Congressional Record.

Now, of course, such a very absurd and prejudicial statement as that does an injustice to everybody concerned, misleads men, inflames the minds of men who are concerned directly and men who are only indirectly affected. The truth about that matter is that there were about 6,000 men who were put on a minimum wage of 23 cents an hour and that was all in a certain section of the country where labor was cheap in all industries. Perhaps these statements are made through ignorance and sometimes through design, but they are hurtful in a case of this sort.

In reply to the direct question as to his intentions in regard to the further conduct of the threatened strike, Mr. Grable replied that the executive council of his organization met on July 3 at Detroit and that the presentation of the developments of the meeting and the assurances given, together with other assurances on points he raised, would be very helpful at that meeting. However, he made no definite promises although his attitude throughout the questioning indicated a desire to co-operate in preventing a walkout.

Carriers Promise to End Contracting of Repair Work

At the suggestion of Chairman Hooper the hearing then resolved itself into "a Methodist meeting for a minute or two," practically every executive present standing up at the suggestion of Chairman Hooper as "having come up through the ranks as railway employees." Chairman Hooper then said:

I want your men present here, who are authorized to represent

your roads to get out of this contract business which is in violation of the decisions of this Board, and as we believe the Transportation Act. We want you to announce that fact now in the interests of not only industrial peace on your roads but in interests of fair play to your men. I am not asking you to say your action has been illegal because we differ about that. We are not asking you to concede you have violated the law, not even asking you to say you never will do any more contracting. But we are asking you to make this simple, frank announcement that the American people will approve. What I want you to do is simply to say that you will withdraw from the contract policy on your road, will cut out the contracts that are now outstanding and that you have no present intention of going back into it. That you don't do in the face of a threat to strike. You are not showing any lack of manhood or moral courage but you are simply expressing a desire to put yourself in line and in conformity with the decisions of this Board which is a government tribunal.

Jacob Aronson, representing the New York Central, the Michigan Central and the Cleveland, Cincinnati, Chicago & St. Louis, was first to comply with Chairman Hooper's request, stating frankly that it was the belief of these carriers that their contracts were not in violation of the Board's decisions or of the provisions of the Transportation Act, but adding:

In the interest of harmony and with a definite view of removing every vestige even of colorable cause of complaint, these carriers are prepared now to say to the Board without prejudice to their legal rights that if such action will avoid a strike, they will undertake as soon as they legally may do so under the provisions of the several agreements to terminate the agreements of these carriers which have been evolved in the hearings this week that cover repair of equipment.

Similar statements were made by Ralph M. Shaw, general counsel of the Chicago Great Western; H. E. Byram, president of the Chicago, Milwaukee & St. Paul; Ralph Budd, president of the Great Northern; W. E. Williams, representing the Missouri, Kansas & Texas; Frank H. Alfred, president of the Pere Marquette; J. M. Kurn, president of the St. Louis-San Francisco; John G. Walber, representing the Ann Arbor; W. G. Bied, president of the Chicago & Alton; Hale Holden, president of the Colorado & Southern, and C. W. Coe, assistant general manager of the Wheeling & Lake Erie.

These concessions on the part of the railroads named, made in the interests of uninterrupted transportation service and in an effort to co-operate with the Board in settling the controversy, were futile, however, insofar as the shop crafts were concerned. Mr. Jewell was not present nor could he be found by the officer delegated to serve the subpoena.

The examination of E. H. Fitzgerald, president of the Brotherhood of Railway and Steamship Clerks, Express and Station Employees; D. W. Helt, president of the Brotherhood of Railroad Signalmen of America, and Timothy Healy was comparatively short, each witness outlining the manner in which the strike ballots were prepared, distributed and tabulated and the authority of the chief executive to order a walkout. In each case it was developed that no strike orders would be issued in time to call out the men represented in these organizations before July 1. Both Mr. Fitzgerald and Mr. Healy predicted that some of their men would join the shopmen on July 1 despite their orders.

Shop Crafts' Leader Denounced by Chairman Hooper

The absence of Mr. Jewell from the hearings and the inability of the officers of the Board to serve a subpoena on him led to the following remarks by Chairman Hooper which are self-explanatory and which closed the hearing:

The Board has ample power to compel Mr. Jewell's presence here as a witness, not as a party to the controversy, but as a witness to material facts involved in this hearing.

Tomorrow, according to the letter of Mr. Jewell, and a previous notification received from him, is the day set for the strike of the organizations, the shop crafts, which he represents. That being the case, it is not worth while for this Board to adjourn this case over till tomorrow, to undertake to compel Mr. Jewell's presence here. No practical purpose could be subserved by it. The chair did want Mr. Jewell to understand that it has the

power to compel his attendance here, and had he been found, proper steps would have been taken to compel it. But, this Board feels that it has fully carried out the responsibility resting upon it under the Transportation Act, to use every available means to prevent labor disturbance which might result in interruptions of traffic. The Board having gone that far, and tomorrow being the day for the strike, no practical purpose can be subserved by an adjournment of this hearing in order to get his testimony.

The Board right here might express its appreciation of the different force of conduct adopted by the gentlemen representing the other organizations of employees, and also its appreciation of the very fine spirit shown by nearly all of the railroads. In my own mind I can think of but two exceptions, which I will not name.

So far as Mr. Jewell is concerned, let his blood be on his own head. Mr. Jewell has flouted a government tribunal, charged with the duty and responsibility to investigate this matter, not only in the interests of the public, but in the interests of his own organizations, and the interests of the carriers the railway transportation system of this country. He has shouldered the responsibility of his own volition, and the Board desires to pursue the matter no further.

The Strike Situation to Date

So ended the first effort of the government to intervene. The strike began promptly at 10 a. m. July 1, with varying success at different points. So far, it has been very difficult to determine the number of men actually out on strike or to estimate the effects of the walkout upon the ability of the railroads to meet the ever-increasing demand for transportation service. This is due largely to the fact that the strike was called on Saturday, two of the following three days being holidays. It is known, however, that in many places employees have gone out with the strikers confident that their seniority and other rights will not be taken away from them, with the intention of returning to work after the Fourth of July.

Labor Board Calls for New Unions

The first official expression of the opinion of the Board on the strike was announced on July 3 in the form of a resolution calling for the formation of new labor organizations and the protection of workers remaining on duty or hired to take the places of the strikers. This resolution said:

Be it resolved that it be communicated to the carriers and the employees remaining in the service and the new employees succeeding those who have left the service to take steps as soon as practicable to perfect on each carrier such organizations as may be deemed necessary for the purposes above mentioned to function in the representation of said employees before the Railroad Labor Board, in order that the effectiveness of the Transportation Act may be maintained, and

Be it further resolved, that, on any carrier, where either of the above named organizations, by reason of its membership severing their connection with the carriers, ceases to represent its class of employees, procedure similar to that above suggested in the case of the shop crafts is recommended, and

Be it further resolved, that the employees remaining in the service and the new ones entering same, be accorded the application and benefit of the outstanding wage and rule decisions of the Labor Board, until they are amended or modified by agreements with said employees, arrived at in conformity with the Transportation Act, or by decision of this Board, and

Be it further resolved, that, if it be assumed that the employees who leave the service of the carrier because of their dissatisfaction with any decisions of the Labor Board are within their rights in so doing, it must likewise be conceded that the men who remain in the service and those who enter it anew are within their rights in accepting such employment, that they are not strike-breakers seeking to impose the arbitrary will of an employer on employees; that they have the moral as well as the legal right to engage in such service of the American public to avoid interruption of indispensable railway transportation, and that they are entitled to the protection of every department and branch of the government, state and national.

By Wednesday it became possible to begin the reorganization of the shop forces on practically all of the carriers affected by the strike. Throughout the country thousands of new men are being hired daily and many shop men are returning to work before the expiration of the time limits variously

set by different railroads at from July 5 to July 10. Mr. Jewell's claim of a "100 per cent" walkout have not as yet been specifically answered by railway officers, but the real conditions will be disclosed during the next week when detailed reports can be compiled.

Comparatively little violence has been reported from any point in the country, present reports indicating minor disturbances here and there but little or no action requiring extensive protective measures.

Maintenance Strike Called Off

After a long conference on the Fourth of July between the executive officers of the maintenance of way union and members of the Labor Board the threatened strike of these employees was called off, the official announcement to that effect being issued by E. F. Grable, president of the union. Mr. Grable's communication stated that it was the belief of the officers that "it is not wise for our membership to leave the services of the carriers until every resource has been exhausted that affords hope of a peaceful adjustment." The plan determined upon by the leaders of the maintenance of way organization includes the taking up with the railway managements of "all the grievances and controversies outstanding between the members of the organization and the carriers" including "revision of the recent wage decision of the Board, certain changes in rules and the question of contracting out labor." Another phase of the plan provides for continuing work under the present wages under protest with the understanding that any revision of wages obtained be made retroactive to July 1.

"With the best interests of the members of our organization at heart," Mr. Grable said, "It is our judgment that more will be gained for them by the program here outlined than could be derived from any other source. We believe that a just and generous public sentiment will sustain us in this policy and every move necessary to its accomplishment will be most vigorously stressed."

Mr. Jewell's Reply

Mr. Jewell's reply to the Board's resolution quoted in part above stated that that body has "outlawed itself" as the friend of the unions and has adopted a tragic attitude in attempting to force American workers to accept a wage scale below "decent" levels.

"The Board is now attempting to direct the organization of employees," Mr. Jewell said, "And to select those whom it will recognize as organizations of railway employees. In this partisan effort of the Board to destroy the effectiveness of the organization which the railway employees have formed by their own desire and in the exercise of their right of mutual aid and co-operation the Board has 'outlawed' not the organization of employees but itself.

"It is a tragedy that the Board has, first, allowed itself to be used as an instrument to lower the American standard of living at the behest of organized greed and, second, allowed itself to be used as an instrument of attack against the national organizations of labor that have been for a generation the means of peaceful, reasonable betterment of the conditions of the wage earners.

"The Labor Board has placed itself in the position of being not an arm of the government of the people of the United States—the Board has placed itself in the position of being an arm of an organized financial and employing interest which is engaged in a nationwide campaign to reduce wages below the level of a decent living, to check the rising standard of living for the American worker and to disintegrate the protective organization of the worker."

The Board's rejoinder to this letter was made public on July 5, Chairman Hooper pointing out that Mr. Jewell had previously announced that the striking shopmen were no longer "under the jurisdiction of the Labor Board" and that

furthermore the Board had not outlawed the shop crafts in its resolution.

"When certain of the employees went out of the employ of the carriers," Chairman Hooper's letter said, "A majority of those who remained in and those who may subsequently enter will be entitled to represent all of any given class of employees in any dispute before the Board. The Board will not cease to function merely because certain employees leave the service nor will the Transportation Act be annulled. It therefore follows that you are grievously in error when you state that the Board has 'outlawed' your organization.

"It has only accepted your own statement as one of facts and law that the striking men are not now employees of the carriers.

"You must know that you do this Board a grave injustice and yourself no credit when you characterize the Board as unfriendly to your organization, as being implicated in a 'drive' of the financial interests against the employees. You are too well aware of the numerous instances in which the Board has upheld all the railway labor organizations, recognized their right to function, declaring their right of collective bargaining and sustaining them in their resistance to efforts made here and there to deprive them of their rights and privileges. But because we have thus recognized the rights of the employers it does not follow that we can or should agree with them in every contention or that we should ignore the rights and interest of the public."

No Interference from Washington

WASHINGTON, D. C.

AFTER HAVING made it clear that the Railroad Labor Board has the full support of the administration and that it does not expect a stoppage of transportation, Washington officials appear to have adopted a "hands-off" policy with reference to the railroad strike. President Harding left the city for a holiday trip shortly after the strike began, Attorney General Daugherty also went on a trip and Secretaries Hoover and Davis were engrossed in their efforts to induce the coal operators and the miners' union officials to agree on a basis for negotiating a settlement of the coal strike.

No signs of the slightest intention on the part of the administration to interfere in any way were discernible in Washington and newspaper men were reminded by high officers of the government that a shop or maintenance of way strike could not stop traffic or even interfere seriously with railroad operation for some time. The attitude was in marked contrast to that displayed when a trainmen's strike was threatened last fall, when the attorney general and his assistants had complete plans prepared for enjoining the labor leaders and probably also tying up their strike benefit funds, on the ground that a strike against the orders of the Labor Board would require the exercise of governmental power to protect the vital right of the public to uninterrupted transportation service. Not the slightest sympathy was manifested in administration circles with the claim of the union leaders that they had not received a fair deal at the hands of the Labor Board. On the contrary, the view was expressed at the White House, on the strength of reports from Chairman Hooper of the board, that its action was fully justified and that when it spoke it enunciated the policy of the government. Therefore there was no suggestion of any compromise affecting the board's decision.

At the White House it was stated officially on Friday, after the strike order had been issued, that it was the function and duty of the Labor Board, delegated to it by Congress, to deal with wage controversies, that the board was the agency to express the government's policy and to be backed up by the government and that for the purpose

of the present case it is the government. It was also added that the government expects to be supreme. A question by a newspaper man also brought out the fact that the President understands clearly that the 23 cents an hour rate, which the labor statements have used as the basis for their claim that the wages fixed are too low, applies to only a small percentage of the men and recognizes local conditions in some parts of the south and southwest.

The legal theory on which the administration was prepared to act in case of a trainmen's strike last fall was that it would be directly against orders or findings of the government, represented by the Labor Board, and not against the railroad corporations, and that, under the Debs and Adamson law case decisions of the Supreme Court, where a labor organization seeks, by an organized cessation of labor, to paralyze the public service of the railroads, the United States government, on the motion of the attorney general or other proper governmental representative, has the right to apply to a court for an injunction enjoining the employees from combining and conspiring to interfere with interstate commerce. Also that upon violation of such injunction, the court may inflict punishment by fine and imprisonment, as was done in the Debs case.

It was undoubtedly the fear of such action on the part of the government as well as the knowledge that a strike would have no popular support, that induced the brotherhood leaders to grasp the opportunity offered them by the statement of the Labor Board that it could not expect to clear its dockets for a wage reduction case for some time, and to call off their strike. Since that time Secretary Hoover has emphasized to the railroad executives the importance of preserving as good relations as possible with the train service employees, on the ground that they are the only class of employees indispensable to railroad operation, and that the mechanics and track forces in the main can be recruited from the general labor pool of the country.

Before the coal strike the government made some efforts toward mediation because there was no established tribunal to decide the controversy and after the strike had progressed for three months efforts were renewed to settle it by negotiation even on a compromise basis. However, when the shop and maintenance of way unions threatened a strike no efforts toward mediation were made because a governmental tribunal had adjudicated the dispute. The theory of the transportation act is not to prohibit strikes and that if a class of railroad employees is sufficiently dissatisfied with the wages fixed to be willing to take the chance of having its jobs taken by others the government has no right to interfere unless the public welfare is seriously affected. As it would probably be considered rather futile to try to stop a strike by injunction after it had been in progress for some time, and after the strikers have been outlawed, the failure to take any action at this time would seem to indicate a confidence that the wages established by the board are high enough to attract men to perform the necessary work, and that if the men who have been doing it are unwilling to continue, the railroads will have comparatively little difficulty in replacing many of them, besides having much of their maintenance work done by contract.

F. C. GALLOWAY, station master of the Pennsylvania Railroad at Cincinnati, Ohio, writing to the Pennsylvania Railroad magazine, *The Pennsylvania Standard*, says that the public is better mannered than it was when he first came in contact with it in the railroad service, about 36 years ago. "The grumpy bluffer used to be always with us; but now he is an exception. The campaign for better manners among railroad men has had its effect on the traveling public, and passengers are more careful in their manners, lest they be excelled by a poor railroad man. The benefit derived has been mutual. . . ."

Train Service Not Affected by Shopmen's Strike

Walkout Occurs in Midst of Holiday Rush—Many Employees
Return and New Men Being Hired

THAT PASSENGER service was being handled on schedule and freight service practically without interruption and that a record-breaking holiday traffic was cared for without untoward difficulty were the outstanding features of the first few days of the shopmen's strike which began according to schedule at 10 a. m. on July 1.

The response to the strike call was fairly general. Some roads reported that 100 per cent of their shop employees had left their work and others lost employees in their maintenance and clerical forces even though no strike had been called for the latter.

The Pennsylvania, which was not a party to the Labor Board's decision, has been affected by the strike to some extent, but its big shops at Altoona have lost few, if any men. The Reading stands out as an exception, its shop forces, being members of the Federation of Railroad Workers, were not called out.

The starting of the strike on Saturday morning offered a serious situation to the railroads because it timed the strike with the holiday passenger traffic. The railroads had to contend with a record-breaking holiday rush. The New York Central, to take one example, handled on Saturday 27 extra sections of passenger trains out of New York. The Pennsylvania between 6 o'clock Saturday morning and 6 o'clock Sunday evening moved 100,000 passengers to Atlantic City, Cape May, Wildwood and other South Jersey points, constituting one of the heaviest movements of holiday travel ever recorded in a similar period. Similar experiences were reported by the New Haven, the Boston & Maine and many other roads. The returning traffic Tuesday presented another problem but except for minor difficulties no trouble was presented other than that normally to be met with under such circumstances.

Determination of the full effect of the strike was difficult at the start because it was felt that many of the men who failed to report were merely laying off for the holiday. At any rate the railroads took prompt steps to meet the situation. Advertisements for men promptly appeared in the daily papers at all important industrial centers. Applications for employment were received in large numbers and between the new men secured in this manner and the fact that many of the regular employees have since returned to service the railroads have been able to report a rapidly improving situation. Some of the railroads, notably those in the New York metropolitan district have announced a further step in the form of action to remove from their payroll strikers who fail to return to work. The men have been told that they will lose their rights and will be hired only as new employees. New men now being employed to take the places made vacant by strikers are assured permanent positions if they prove themselves competent. This policy, it is explained, is in entire conformity with the resolution of the Labor Board which places the strikers without its jurisdiction. The new men are being paid at the new Labor Board scale.

E. M. Rine, vice-president and general manager of the Delaware, Lackawanna & Western and chairman of the conference Committee of Managers of roads entering New York, is quoted as saying after a meeting of the committee on July 3:

"A man who has left the service is gone. If his place is taken by a new man he loses his seniority. The new men will have permanent positions and protection, if they fill the bill.

"The railroad companies have hired more than 1,000 new men in this city since Saturday. We are not hiring strike-breakers. We are hiring men to take the place of men who have left their jobs. We don't raise any question as to whether they are union men or not."

The Long Island has announced to the public its plans for paying off the strikers on Friday.

Roads Appeal to Employees to Remain at Work

Just prior to the strike most of the roads issued statements to their shop employees and the public calling attention to the fundamentals involved in the strike, i. e., that the strike is directed primarily against a lawfully-arrived-at decision of the Labor Board, a government tribunal.

A typical statement is that issued by P. R. Albright, general manager of the Atlantic Coast Line which follows in part:

Briefly stated the strike vote was taken on five points of alleged dissatisfaction as follows:

1. Installation of piece work without agreement by committees.
2. Right of railroads to contract their car and locomotive shops to contractors.
3. Failure of railroads to observe orders of the Labor Board.
4. Opposition to rules ordered by the Labor Board.
5. Reductions of wages ordered by Labor Board effective July 1, 1922.

The Atlantic Coast Line is in no way involved in any of these matters except that its employees have expressed opposition to several of the rules ordered put into effect by the Labor Board some months ago, to which only one member of the Board dissented in rendering the decision. The employees are also opposed to acceptance of the reduction in wages ordered by the Labor Board effective July 1, 1922.

In both instances conferences were held between representatives of the employees and the management of the Atlantic Coast Line Railroad, and upon failure to agree the questions at issue were submitted for a decision to the United States Railroad Labor Board in the regular orderly way provided for in the Transportation Act; the submissions being jointly signed by the management and the employees of the Atlantic Coast Line Railroad. In the case pertaining to wages the Labor Board has recently issued an official decision ordering a reduction in wages, concurred in by six of the nine members of the Board which includes all of the public representatives thereon. The strike, if called, therefore, is between the shop employees, headed by Mr. Jewell, and the American public acting through its representatives on a federal board delegated by the Transportation Act to decide such matters.

The Atlantic Coast Line Railroad has complied with all of the requirements of the law and has also complied with all of the decisions of the United States Railroad Labor Board. There has been almost complete absence of friction in the relations of this company with its employees and at the present time, through the best of individual effort on the part of employees and the supervisory officers, the operation of the railroad has more nearly approached normal peace time conditions than at any time since the war. It is much to be regretted that in spite of the facts as they actually exist, and without regard to the spirit of the law enacted by congress for the purpose of maintaining uninterrupted transportation, the employees of these classes should leave the service of this company in a body as proposed, which is without justification under the conditions which now prevail.

I make an appeal to the employees to remain at work, observe the spirit of the law by accepting the decisions of the Labor Board created by congress, and maintain uninterrupted service for the future welfare and benefit of themselves, the public and the company, all of whom are vitally and directly interested in that being done.

The Situation in the East and South

The following is a brief analysis of the situation on the various railroads in the East and South as of Wednesday:

BALTIMORE & OHIO

The situation on this company's lines at the beginning of the strike was shown in a statement issued on July 3, by C. W. Galloway, vice-president in charge of operation to be as follows: "Complete reports from all principal points indicate 73 per cent members Federated Shop Crafts went out on strike Saturday and reports thus far received for first trick today indicate practically no change compared Saturday. Our movement Saturday was good and as much as we had been moving for several weeks past. Yesterday about usual Sunday average. Reports from several points indicate number of the men who went out Saturday will return by Wednesday. At Mt. Clare shop today some fifty men who had gone out returned to duty. There are no present indications of difficulty in moving passenger and freight traffic. Everything quiet."

Vice-president Galloway on July 5 described the strike situation as follows: "Complete reports from principal stations for all tricks July 4 indicate no change strike situation compared with Saturday. Reports from some points today for first trick show increased force by old men returning and new men hired. Movement yesterday somewhat less than Sunday and Monday account holiday as well as reduced operation at some points due to strike. No difficulty in moving passenger and freight traffic. Everything quiet."

BANGOR & AROOSTOOK

Out of approximately 410 shop employees, 80 per cent went on strike, causing no interference with traffic. The road is gradually filling vacancies with new men and a few of the strikers who are returning. Most of its outlying points are fully covered. The road advises that its power is in good shape with serviceable engines stored and that it anticipates no interruption to traffic.

BESSEMER & LAKE ERIE

Shops working 100 per cent on Monday. A small number in the car forces at Conneaut Harbor, Ohio and Albion, Pa., ceased work. No cessation of train movement.

BOSTON & ALBANY

On Saturday morning about one-third of this company's employees in shops, engine houses, coal pockets, ash pits and at inspection points went on strike. A good many section men left the service. On July 3 the Allston shops were operating with a full complement. On the same day 85 men reported for work at West Springfield shops. There has as yet been no interference with freight or passenger service, which latter has been exceptionally heavy. There have been no disorders of any sort at any point on the line.

BOSTON & MAINE

Despite heavy holiday passenger traffic beginning Saturday, passenger trains run with but little delay. Freight is being handled without embargo or restriction. There has been a heavy response to the company's advertisements for recruits. The new men are being assured of permanent positions if competent. Press reports told of 200 men who went on strike Saturday returning to work Monday.

CENTRAL OF GEORGIA

Mechanical crafts walked out on July 1 but most of the colored helpers and shop laborers remained at work as did all mechanical foremen. These foremen with the assistance of laborers are getting trains out on time. A heavy holiday traffic was handled without material delay. No disturbances have been reported.

DELAWARE & HUDSON

Practically all employees at the smaller terminals remained at their posts. At the larger terminals about 50 per cent of the engine house and stores department employees left the service, together with practically all car shop employees. About 400 new men have been employed to take the places of striking engine house employees, engine dispatchers and car inspectors. Trains are moving according to schedule.

ERIE

This company's shops are operated by contractors and it is the contractors who are filling the places of striking employees. About 2,500 of the contractors' old force of 7,500 men are at work. Between 600 and 800 new men have been employed and about 200 former employees have returned to the service. All trains are being operated practically on schedule.

LEHIGH & NEW ENGLAND

None of this company's regular shop force of 279 employees were on duty July 5. A few transfermen, signalmen and line-men also were out.

LEHIGH VALLEY

About 1,420 regular employees out of a force of 5,573 are at work. The road is successfully replacing the employees who have left the service. All trains are being operated on schedule including fast freights.

LONG ISLAND

C. D. Baker, general superintendent, made public the following statement Saturday afternoon:

"At ten o'clock this morning about 1,000 men stopped work in our Morris Park shops, including machinists, boilermakers, electricians and the usual shop craft men, in addition to a number of employees, classed as laborers, who do not come under the shop agreement."

"At the Long Island City engine house 300 of the 310 shopmen employed there went on strike. None of the shopmen in the Marine shops at Whitestone have stopped work. Practically all of the high tension men of the electrical department left the service. A number of car inspectors stopped work."

"It is difficult to determine exactly how many men have left the service for the reason that a great many of the men involved in the shopmen's strike order would not have been at work Saturday, Monday and Tuesday, which are holidays. In so far as the men actually employed in the shops are concerned, it is our belief that their leaving the service will not seriously affect the train service, as our equipment is in excellent condition and can be utilized for a long period without being shopped for repairs."

A special effort has been made by the striking employees, but without success, to stop the operation of the power houses at Long Island City.

The Long Island is advertising for shop employees. On July 3 announcement was made that the company would pay off on July 7 those shopmen who had "not seen fit to return to duty." Sufficient men, the announcement said, having been obtained to take care of the work necessary to be done at this time.

MAINE CENTRAL

About 90 per cent of the shop forces left the service. No interruption to passenger service. Freight service being performed satisfactorily. Road is well fixed from the standpoint of power and equipment condition.

NEW YORK CENTRAL

The executive offices of the New York Central Lines in New York reported on Wednesday afternoon that the strikers were drifting back at practically all points over the system and applying for their former positions. At the outset of the strike on Saturday, the statement continued, the number of men in all the shop crafts who had left their work were distinctly in the minority. In some districts, the men remained at work 100 per cent, in defiance of the strike call, while the condition was variable in different localities and ranged from a complete walkout to the departure of merely handfuls of men, from some of the engine terminals and from the locomotive repair shops.

The combination of the record breaking holiday passenger traffic and the quitting of 50 car inspectors, air-brake men and others having to do with the make-up and inspection of passenger trains at Grand Central and Mott Haven yards presented the New York Central with an acute situation at New York during the first few hours of the strike. The amount of traffic necessitated the running of 27 extra trains or sections. The result was delayed service for a period in the afternoon but the situation was soon taken in hand.

Other men held in readiness were put in the places of the strikers and no train was cancelled. These car inspectors having directly to do with train operation quit generally at most terminal points but the railroad management succeeded in having their places promptly filled and avoiding interruption of passenger service.

From the beginning of the strike Saturday morning until Wednesday evening, each succeeding hour saw, the company reported, large forces employed at each point, the New York Central employing considerable numbers of men on Saturday, Sunday, Monday and Tuesday while Wednesday saw the beginning of the return in considerable numbers of old employees. No strike breakers were employed by the New York Central, it being stated that every man would be given a permanent position if he proved competent, that he would be protected at his work and that any strikers re-employed would have to come back as new employees with the loss of their seniority and pension rights.

It was stated on Wednesday that the complete loyalty and splendid service of the supervisory forces had enabled the railroad to continue full passenger and freight service, and that with the addition of competent men available to fill out the forces within a short time, the situation would improve from day to day. The strikers on this railroad generally had left their work peaceably and there was no disorder at any point, of consequence.

At some points, the strikers met on Wednesday and voted on the question of returning, these meetings generally resulting in the return of considerable numbers to work and at one point the vote was unanimous and the entire striking force returned to their work en masse.

The points on the New York Central chiefly affected are Albany, Utica, Syracuse, Rochester, Buffalo, Cleveland, Toledo, Elkhart and Chicago. Reports on Saturday were to the effect that only 17 men obeyed the first call and left work at the locomotive shop at West Albany.

NEW YORK, NEW HAVEN & HARTFORD

C. L. Bardo, general manager, issued the following statement on July 1:

"The New York, New Haven & Hartford reports no delays to trains on its lines due to the withdrawal of mechanical department forces at 10:00 A. M. today. There has been some slight delay to New Haven trains in starting from the Grand Central Terminal. Out of a total authorized force of 6,139 men, which covers the full complement for the entire 24-hour period (these forces working on an 8-hour day basis) all of the men on the first shift, which consists of about 2,500 men, withdrew from the service at 10 o'clock today, except 276 mechanics of various crafts at the several locations. All points are now being covered by competent men. While no strike has been ordered in the maintenance of way department, the reports so far received would indicate that from 100 to 200 laborers, widely scattered, failed to report for duty at the accustomed hour this morning, presumably as a result of the reduction in rates ordered by the Labor Board effective today."

On July 3 the road reported an improved situation with respect to mechanical department forces and similar reports followed on succeeding days. On Monday on the first shift there was an increase of 472 men as compared with the first shift on Saturday after the strike was called. On Tuesday there was a further increase of 4 men and on Wednesday another increase of 653. The New Haven has advertised extensively and is hiring skilled mechanics at the new Labor Board scale, applications for employment being received in large numbers. From the start of the strike passenger and freight service has been maintained on a normal basis.

NORFOLK & WESTERN

The strike of the shop employees has had the effect of slowing up freight movement on this company's lines to some extent, the interruption being greatest between Roanoke, Va., and Hagerstown, Md. More employees were on duty on July 5 than on July 1, the first day of the strike, and some improvement in the movement of freight traffic has been noted. Maintenance of way forces have been very slightly affected by the strike. On July 5, at 10 A. M., 99 clerks out of a total of more than 800 left the service at Roanoke.

PENNSYLVANIA

The most important feature in connection with the strike insofar as it concerns the Pennsylvania System is that the Altoona shops are not affected. The situation on the system as a whole on the first day was described in a statement issued late in the evening to be as follows:

"As far as Philadelphia is concerned the Pennsylvania Railroad is practically unaffected thus far by the strike. Up to 4 p. m. out of a total force of 3,724 maintenance of equipment employees on the Philadelphia Terminal Division, including the West Philadelphia Shops, only 122 men failed to report. On the evening shift only 46 men were out. These numbers of absentees are in no way abnormal, especially before a holiday, and might occur under ordinary circumstances without attracting notice.

"Outside of Philadelphia, the Eastern Region showed about 2,500 men failing to report out of total forces of over 27,000. At certain points, notably in the neighborhood of New York City, where there had been considerable losses on the first shift, late afternoon and evening conditions showed improvement, and there is no point in the region at which any engine house or shop is unable to function.

"The Altoona Works were unaffected by the strike and worked with normal forces all day. These are the largest and most important shops on the Pennsylvania System, employing 12,000 men."

The report issued Sunday gave some interesting details concerning the holiday traffic.

"Throughout the Eastern Region more than 85 per cent of the normal Sunday forces reported. On the Philadelphia Terminal Division 100 per cent worked.

"Advertisements for men to take the places of those leaving the service have been inserted in the newspapers of a number of cities, including New York, Philadelphia, Camden and Atlantic City, and a number of new men have been hired for work at various points. Despite the day being Sunday, applications for permanent jobs have been freely made.

"Train service has not been affected in the slightest degree at

any point by the strike. The volume of traffic, both passenger and freight, handled since the strike began, has been unusually large. Between 6 o'clock Saturday morning and 6 o'clock Sunday evening, the Pennsylvania carried to Atlantic City, Cape May, Wildwood and other South Jersey points approximately 100,000 passengers, constituting one of the heaviest movements of holiday travel ever recorded in a 24 hour period.

"In addition to the regular trains, 48 extra trains and sections were operated to the shore in this interval. Throughout the entire Eastern Region, 640 extra passenger coaches were in service and these were operated from two to four round trips each. The total passenger travel in the Eastern Region has been about 25 per cent ahead of the corresponding portion of the holiday period of last year.

"Complete reports received today by C. S. Krick, general manager of the Eastern Region, regarding the traffic handled on Saturday at Pennsylvania Station, New York City, established definitely the fact that it was the heaviest ever recorded in a single day since the station was opened twelve years ago. Altogether 688 trains were operated in and out of the station during the day. They made up a total of 5,066 cars, carrying an estimated number of 303,000 passengers."

The reports on the following days indicated that the general tendency on the system was in the direction of improvement. Emphasis was placed on the fact that normal service both freight and passenger was fully maintained without difficulty. Wednesday night the situation was described as follows:

"Normal performance of all service both passenger and freight continued today on all four regions. Car and engine repair shops were generally closed for the holiday. Enginehouses at all points performed all functions necessary in connection with train movement. At a number of points men who had left their work reported back and asked to return to duty whenever they were needed. Everywhere conditions on the Pennsylvania System were not materially changed."

PHILADELPHIA & READING

This road is not affected, none of its shop employees having left the service. The shopmen on the Reading are not affiliated with the A. F. of L. but with the Federation of Railroad Workers.

SOUTHERN RAILWAY AND OTHER SOUTHEASTERN LINES

In the south the strike had no very marked effect on the handling of traffic during the first few days of the strike and officials said it would be difficult to gauge the situation before next Monday, as many undoubtedly remained away from work over the holiday who would return later.

Reports from the southeastern roads indicate that approximately 90 per cent of the shop employees obeyed the strike order and left their work on July 1, but a considerable number have returned to work in the days since. Some of the roads have posted notices fixing dates by which the men must return to their jobs or lose their rights but other roads had not yet taken this step. On some roads some of the men whose organizations had not yet authorized a strike went out in sympathy with the shopmen. On one large road the maintenance of way employees withdrew from the organization and formed a new one of their own.

There was some delay in the handling of traffic at certain points but no outstanding development had taken place during the first part of the week. The Southern Railway reported that most of its mechanics had gone out but that a few had returned at various points and that the strike had had practically no effect so far.

VIRGINIAN

Approximately 95 per cent of the shop crafts are out, but with no interference with operation.

WESTERN MARYLAND

The *Railway Age* is advised as follows:

"Western Maryland Railway has contracted all repair work. Contractors have not lost a man as result of strike which began July 1. Pittsburgh & Lake Erie Railroad together with Western Maryland is, I am advised, the only line between Pittsburgh and Baltimore which is giving normal service under present conditions. I believe this is good evidence that the public obtains at least some benefit from the contract plan which Western Maryland Railway has had in effect since March, 1922."

Canadian Roads Not Affected

The Canadian National and the Canadian Pacific have not been affected by the strike. The application of the Labor Board's adjustment of shopmen's wages to similar occupations on the lines of the Canadian National is a matter of negotiation between the management and the unions interested. No decision has been reached as yet. On the Canadian National's American subsidiary, the Duluth, Winnipeg & Pacific, the shop employees went out on strike on July 1.

Economic Status of Rail Workers Still 18.75 Per Cent Above 1914

ANALYSIS of the wages of railroad employees by the National Industrial Conference Board shows that the wage cut recently ordered by the Labor Board leaves the four main classes of men affected with an economic status which is nearly 19 per cent higher than their position in 1914. Of the four classes affected, the car men stand at the top of the list with an increase of purchasing power of 33 per cent over the 1914 level, followed by unskilled labor, whose increase amounts to 19 per cent; that of the clerks 13 per cent, and of skilled shop mechanics. The study also demonstrates that even after the new wage cuts go into effect railroad employees will still constitute a preferred class of industrial labor, as their increase in real earnings and their actual money wages are still materially above the real wages and actual wages paid to employees of other industries performing a similar class of service.

The Conference Board's statement, made public on July 2, reads in part as follows:

The majority of railroad employees whose wages will be reduced after July 1 by order of the Labor Board are included in the shop forces, the track laborers, the clerks and the signalmen. Various other classes, such as the stationary firemen and oilers, have also had their wages reduced by the Labor Board's decision, but these form only a small percentage of the total number of railroad employees.

The shop forces include two main classes of employees, the skilled mechanics or the so-called locomotive crafts, comprising the machinists, blacksmiths, boilermakers, sheet metal workers and electrical workers, and the car men, whose duty it is to repair freight and passenger cars. The bulk of the car men are engaged in the repair of freight cars. The maintenance of way employees include, besides track laborers, a number of skilled mechanics, but as these mechanics are paid at the same rates as the mechanics in the shop crafts, unskilled labor only was taken account of by the Board in making the present estimates. The same applies to signalmen, who are chiefly electrical workers or unskilled laborers.

The skilled mechanics of the shop crafts have had an average working week of 48.06 hours since the signing in 1919 of the National Agreements defining the working conditions of this group of employees. Their rate of pay up to the present time has been 77 cents an hour for journeymen mechanics not engaged in autogenous welding, the autogenous welders receiving a differential of 5 cents per hour in addition to the regular mechanic's rate.

The recent decision of the Labor Board cut the rate of skilled mechanics 7 cents per hour, making a new hourly rate of 70 cents. It is fair to assume that the average number of hours of employment per week will not be less after July 1 than it has been during the past two and one-half years, and for the purpose of estimating the earnings of skilled shop mechanics under the wage cut, 48.06 hours have been taken as a basis. At this rate, skilled mechanics will receive pay for 48 hours at 70 cents plus .06 of one hour overtime at time and one-half, making their average weekly earnings \$33.67 per week. This makes their average hourly earnings after July 1 70.1 cents. The average weekly earnings of this class of employees in 1914 was \$19.73, which indicates a net increase over 1914 of 71 per cent in estimated average weekly earnings after July 1. The average hourly earnings of this class were 38.5 cents in 1914, making the increase over 1914 of the estimated new earnings 82 per cent. The index of actual hourly earnings divided by the index of the cost of living, which was 154.9 on June 1, and which will probably change but slightly in the next few months, gives an index of real earnings or purchasing power of actual earnings, based on the average hourly earnings, of 118, and based on the average weekly earnings, the real index is 110. In other words, the economic status of the skilled mechanics of the shop forces when expressed in purchasing power is 10 per cent higher than in 1914.

For the car men, computing the figures in the same manner, it is found that since the signing of the National Agreements reducing the working hours, the average number of hours of employment per week is 48.59. Thus, car men whose rate has been reduced 9 cents from the present rate of 72 cents, will have average weekly earnings of \$31.15, which is a 106 per cent increase over the average weekly earnings of \$15.09 in 1914. Their average hourly earnings of 64.1 cents under the new rate show an increase of 150 per cent over the 1914 average hourly earnings

of 25.6 cents. Their real earnings after July 1 based on their average hourly earnings will, therefore, be 61 per cent higher than in 1914, and based on their average weekly earnings, 33 per cent higher than in 1914.

The average number of hours of employment per week of *unskilled labor* since the signing of the National Agreements has been 49.86. The rate of pay of unskilled labor varies somewhat from one part of the country to another, and in the case of negro labor in some of the southern states, was as low as 28 cents per hour before the decision rendered by the Labor Board. However, the rate paid to unskilled white laborers in the northern and western states, including the great majority of the railroads of the country, has been 40 cents per hour. This rate, reduced 5 cents per hour by the Labor Board's order, will therefore be 35 cents per hour after July 1. Working 49.86 hours per week, the average weekly earnings of unskilled labor will therefore be \$17.45 per week, which is an increase of 85 per cent over the 1914 earnings. The decision rendered by the Labor Board on December 16, 1921, while recognizing the principle of the eight-hour day, provided that track laborers should be paid overtime only after the expiration of the tenth hour of continuous service. The 1.86 hours over the regulation 48-hour week cannot therefore be computed at time and one-half in figuring the weekly earnings of this class of employees. The average hourly earnings will therefore be 35 cents or the same as the hourly rate of pay. This shows an increase in actual hourly earnings of 117 per cent over the average hourly earnings of 16.1 cents in 1914. The real earnings based on the average hourly earnings show an increase of 40 per cent; while real earnings based on average weekly earnings show an increase of 19 per cent.

The clerical forces of the railroads since the Clerks' National Agreement was signed early in 1920 have worked an average of 48.18 hours per week, and, as is the case with unskilled labor, the .18 extra hours over the regulation 48-hour week cannot be computed at time and one-half because of the decision of the Labor Board of January 22, 1922, which ordered that clerical forces should not be paid overtime until the expiration of the ninth hour of continuous service. No definite rate can be established for all classes of clerical employees, but their average hourly earnings in October, 1921, were 61.8 cents. The reduction of the Labor Board, which has just been ordered, equals 3 cents for some classes of clerks, and 4 cents per hour for other classes, or an average reduction of 3.8 cents, which will make the average rate per hour of all classes of clerks 58 cents after July 1. This is an increase in actual hourly earnings of 97 per cent over the 1914 rate and the real earnings of clerks based on their average hourly earnings will therefore be 28 per cent over the 1914 level. Working 48.18 hours per week, the average weekly earnings of clerks will be \$27.94, an increase of 74 per cent over 1914. Computed on the basis of average weekly earnings, their purchasing power will have increased 13 per cent.

Thus, the average increase in purchasing power based on weekly earnings of the four classes is 18.75 per cent over the 1914 standard. The car men stand at the top of the list with an increase of 33 per cent, followed by unskilled labor, whose increase is 19 per cent, the clerks and unskilled shop men coming next with increases of 13 per cent and 10 per cent respectively.

Although comparisons of wages of railroad employees with employees in other industries cannot be made for all classes, and the latest reports of the National Industrial Conference Board on wages of employees in manufacturing industries do not give data for later than January 1, 1922, it is interesting to compare the wages of railroad skilled shop labor with those of the skilled employees of foundries and machine shops, who perform practically identical services. Thus we find that while the average hourly earnings of railroad skilled shop employees under the new wage cut will be 70.1 cents, those of employees in the foundry and machine shop industry stood at 56.1 cents on January 1, and the comparative average weekly wages stood at \$33.67 and \$25.08 for railroad and foundry and machine shop mechanics, respectively. The increase in real weekly earnings of foundry and machine shop employees over the 1914 level was only 5 per cent as compared with a 10 per cent increase for the railroad employees.

The same is true with regard to unskilled labor outside the railroad industry. The National Industrial Conference Board's studies show that the average hourly earnings of unskilled laborers in other than the railroad industry were 41.4 cents as compared with 35 cents for railroad labor on January 1, and the average weekly earnings of unskilled manufacturing labor were \$19.04 as compared with \$17.45 for railroad common labor. While real earnings for unskilled railroad labor increased 19 per cent in the eight-year period, those of unskilled labor outside of the railroad industry increased only 9 per cent. These increases are figured both for the railroad industry and for outside industries on the basis of the Conference Board's cost of living index for June 1, 1922, which shows that the cost of living at that time was 6.6 points lower than on January 1.

Comprehensive Report on St. Louis Terminals

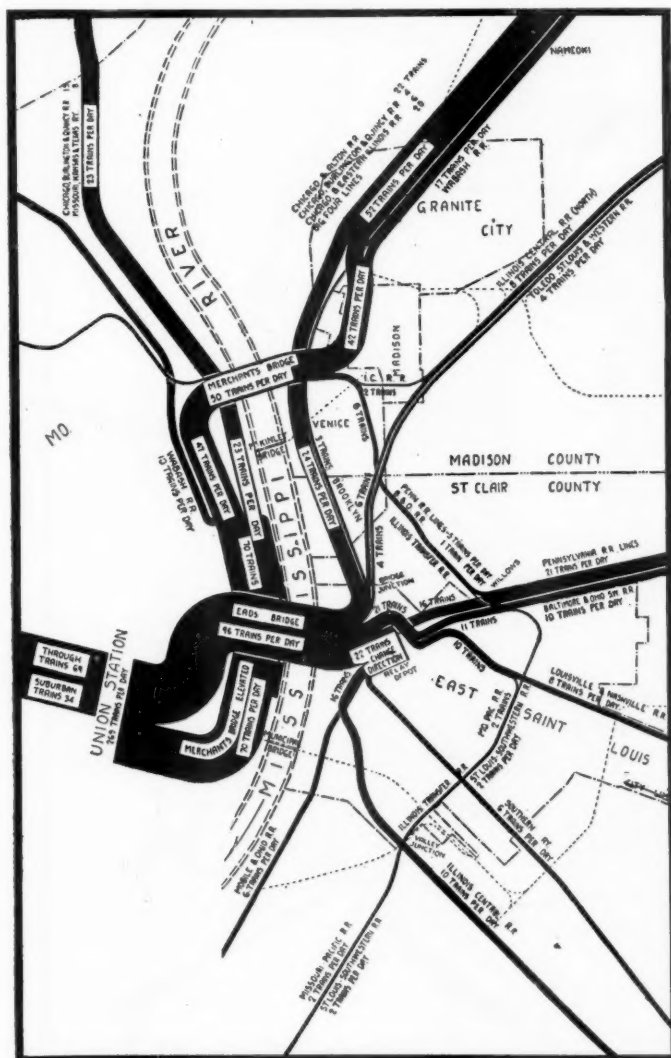
Engineers' Committee Recommends Improved Facilities and Partial Unification of Operation

WHAT IS PROBABLY one of the most complete reports ever made on railway terminals in this country was recently transmitted to the Terminal committee of the St. Louis Chamber of Commerce by the Engineers' committee appointed in 1920 to make a complete study of railway transportation in the St. Louis terminals. This report not only covers an exhaustive study of the entire problem with detailed recommendations for improving rail facilities in and

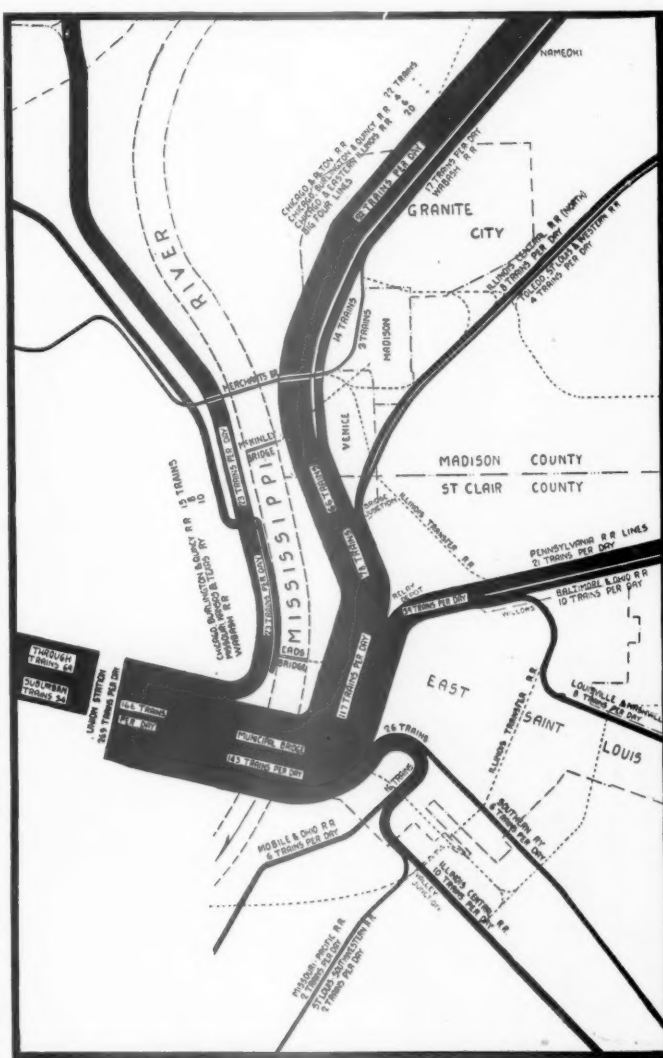
of freight cars, a revised plan for the utilization of the Mississippi river bridges and an improved handling of the l.c.l. business. Electrification is found to be unnecessary and financially impracticable.

The St. Louis-East St. Louis Industrial District

The St. Louis-East St. Louis industrial district comprises an area in Missouri and Illinois about 25 miles square, of



Present Routes of Passenger Trains

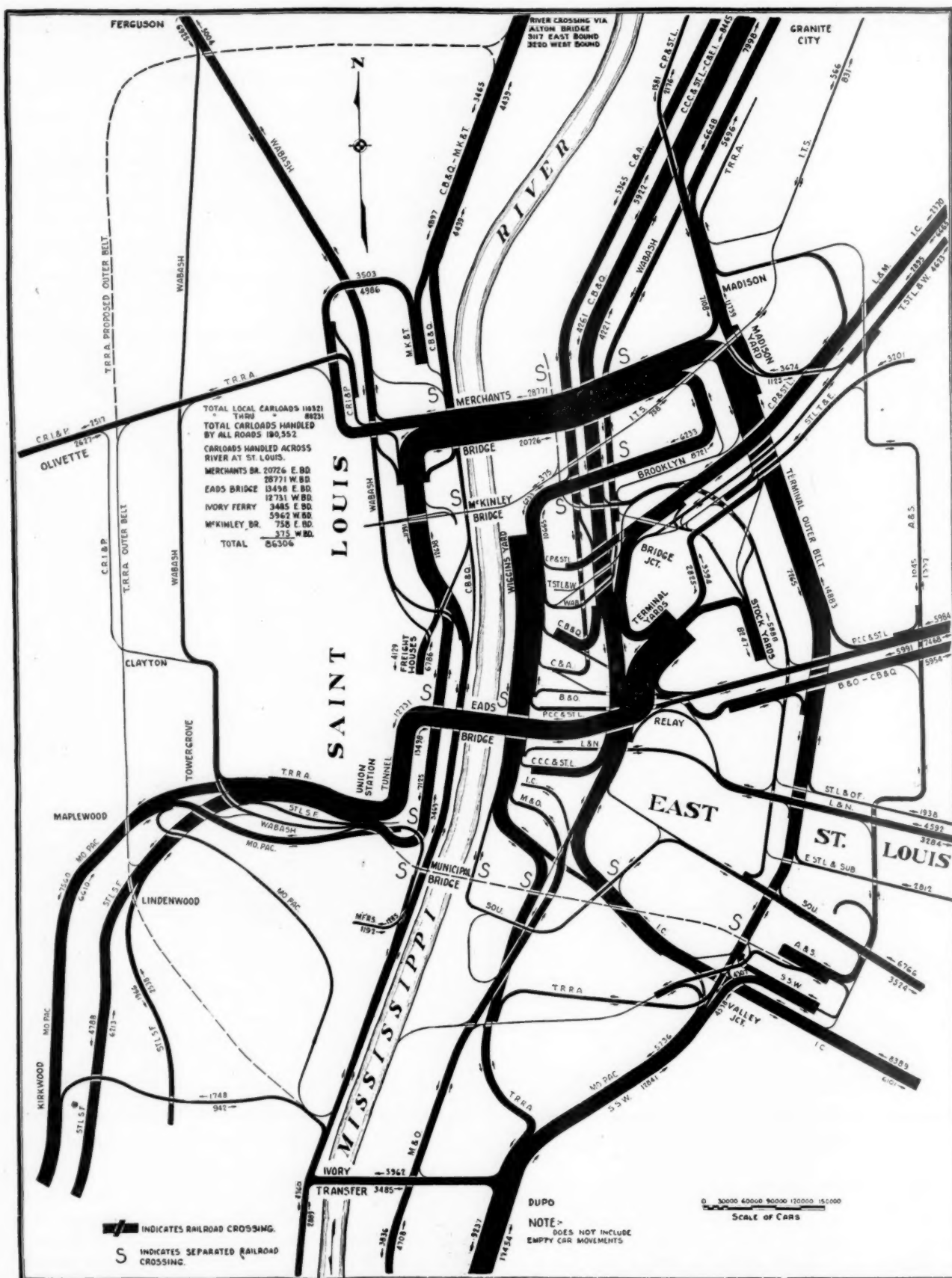


Proposed Routes for Passenger Trains

about the terminals, but also includes a large fund of supporting data concerning railway facilities and operations in the St. Louis terminals as well as abstracts from recent reports on the railway problems of other urban areas. The report evidences a minute study of details and the recommendations made, while including the enunciation of general principles, are exceedingly specific in their reference to particular features of the intricate network which comprises the St. Louis railway terminal area. This study has borne fruit in recommendations for the improved routing of passenger trains, increased facilities at the Union Passenger Station of St. Louis, the unified classification and interchange

which the cities of St. Louis, Mo., and East St. Louis, Ill., occupy most nearly the central position. The Illinois side consists of what is known as the Great American Bottoms, a low level, fertile area, bounded on the east by bluffs. The Missouri side is an undulating surface of gently rolling hills, sloping gradually to the Mississippi. The St. Louis industrial district has a population in excess of 1,000,000.

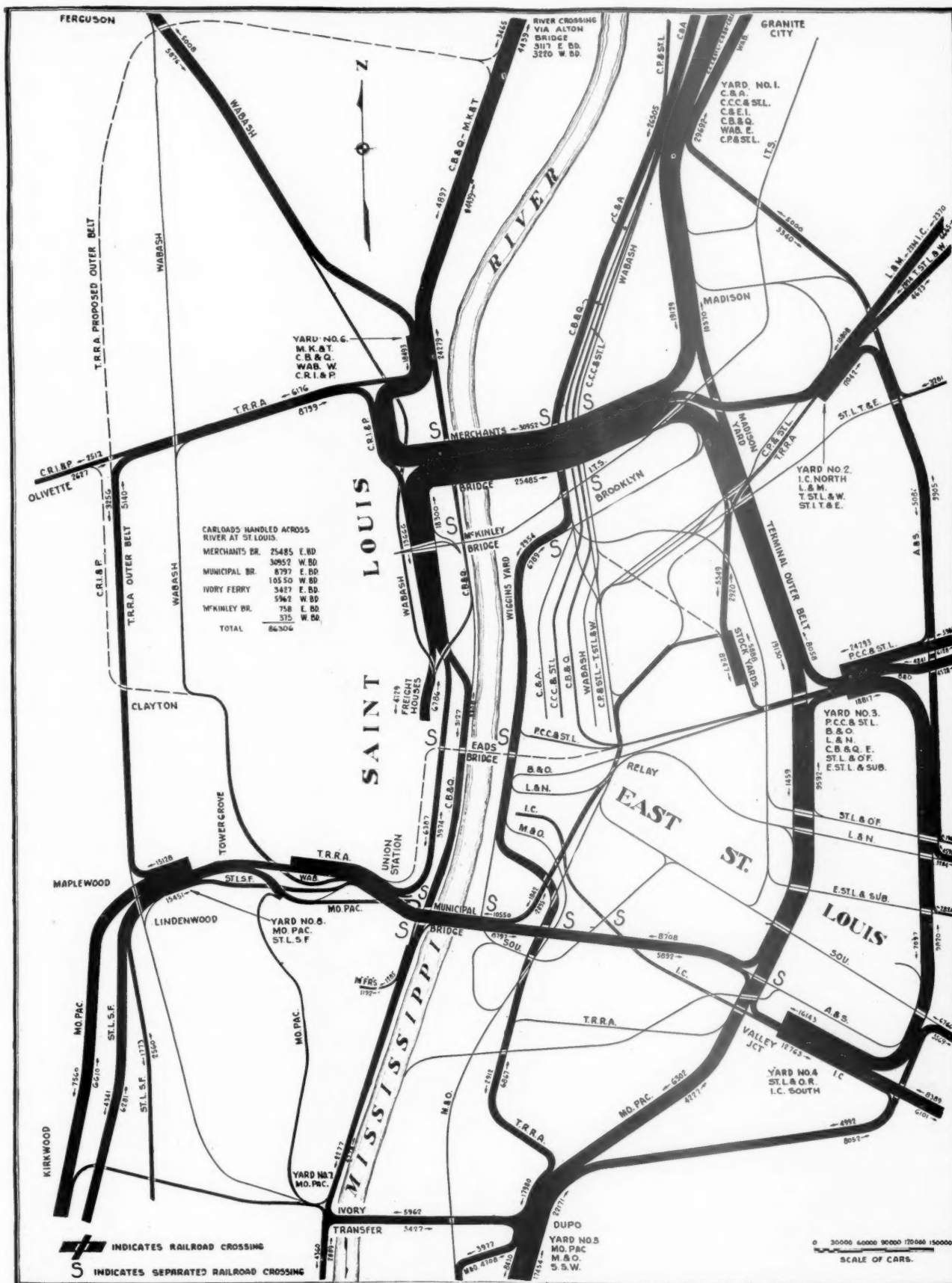
Local conditions at St. Louis and East St. Louis, such as the great expense of Mississippi river bridges have already resulted in considerable unification of terminal facilities in the Terminal Railroad Association of St. Louis, a belt line owned by 15 trunk lines. It was manifestly impossible for



Composite Carload Freight Diagram—Present Routing

each railroad to provide terminals on both sides of the river and to provide its own river crossing facilities. Consequently, it was natural that one company should develop such facilities for the use of all.

The Terminal Railroad Association has become the most notable example in the United States of progress in unification of railroad terminals. Its facilities have been developed on the "co-operative" theory as distinguished from the "com-



Composite Carload Freight Diagram—Proposed Rerouting

petitive" theory under which the facilities of individual railroads are usually developed. At the same time each railroad has developed its own terminal facilities to a greater or less extent on one or both sides of the river on the competitive

theory, while also relying on the facilities of the Terminal Railroad Association for additional advantages.

The river bridges play an important part in the solution of the terminal problem. Two of the bridges, the Eads

bridge and the Merchants bridge are controlled by the Terminal Association. The McKinley bridge is controlled by the Illinois Traction System, while the newest crossing, the Municipal bridge is owned by the City of St. Louis but has not been thoroughly co-ordinated into the general railroad situation by connections adequate to permit its extensive use by railroad trains. To permit this bridge to be adequately used the two present connections must be made permanent and at least four additional connections must be built.

Further recommendations of the committee with respect to the bridges are that the Eads bridge, which is of inadequate loading capacity and encumbered by a tunnel approach, should be abandoned for railroad traffic and that passenger trains should be transferred from the Merchants and the Eads bridges to the new Municipal bridge which should also be used for such freight traffic as can be handled over it more expeditiously than over the other crossings. The McKinley bridge also should be provided with additional approaches and connections which will enable it to be used to better advantage for freight traffic.

Improvements in Passenger Facilities

Eighteen railroad companies operate passenger trains in and out of the Union Station. The number of trains varies somewhat throughout the year, seasonal trains being added and taken off as necessity demands. A detailed study of the time tables of December, 1920, showed a total of 269 passenger trains each day. In addition, the Wabash Railway operates 10 suburban passenger trains per day in and out of St. Louis that do not use the Union Station, their terminus being an uncovered track on the river front at the foot of Olive street. The 269 passenger trains that use the Union Station may be subdivided as follows:

	Trains per Day
Western entrance	103
Eads bridge and tunnel	96
Merchants elevated	70

Little change is recommended for the routing of trains through the western entrance to the station except for the possible addition of two more passenger main tracks. However, attention is called to the objectionable features of the other two routings, that over the Merchants bridge and Merchants bridge elevated having a three mile stretch along the river front through a congested freight terminal and industrial area while the Eads bridge routing embraces a tunnel on the west approach, 1.5-per cent approach grades and an exceedingly congested condition in the vicinity of the Relay Depot in East St. Louis.

The solution offered for these conditions is to abandon both the Merchants and the Eads bridges for passenger service and substitute a route over the Municipal bridge, while for the 23 trains of the Chicago, Burlington & Quincy and the Missouri, Kansas & Texas which use the Merchants bridge elevated along the river front it is proposed to reduce interferences with other operations by an extension of the elevated structure for a considerable distance to the north. The present routing of passenger trains and the suggested rearrangement of routes are shown clearly in the two routing diagrams. The proposed plan for an east side rerouting involves the construction of some long approaches to the Municipal bridge, together with the elevation of the passenger tracks in the vicinity of the Relay Depot to eliminate grade crossings with freight tracks.

The Union Station

The St. Louis Union Station is one of the most conveniently arranged union stations in the country. Numerous features of this station have been copied in the design of other stations, notably the Union Station at Washington, D. C., and the C. & N. W. Station in Chicago. The statement is frequently heard that the Union Station is out-

grown and overburdened with traffic and for that reason a new station will soon be required. On the contrary the station is not used to anywhere near capacity as evidenced by comparison with the South Station in Boston; other comparisons might be made, but it is thought this comparison, with the city most nearly equal in size to St. Louis, will suffice.

	No. of Tracks	Trains per Day	Max. Trains One Hour
St. Louis Union Station.....	32	269	50
South Station, Boston.....	28	660	87

The North Station in Boston handles over 420 trains per day on 23 tracks and is also subject to the interference of a drawbridge. The number of passengers handled annually in the three stations are as follows:

South Station, Boston.....	45,000,000
North Station, Boston.....	30,000,000
St. Louis Union Station.....	25,000,000

Although the Union Station as a whole is entirely satisfactory it is deficient in certain operating features both from the standpoint of the railroads and the public, the following being the more important of the criticisms offered:

- The surroundings are unsightly and the street and street railway approaches are inadequate.
- The balloon type train shed is hot in Summer, cold and damp in Winter, smoky, dark and dirty.
- The midway is too narrow.
- The platforms between tracks are too narrow.
- The station tracks are too short and the curves connecting the station tracks to the approach tracks are too sharp.

The first of these objections will be largely overcome by a plan proposed by the city for the widening of streets and the creation of a plaza adjacent to the station. The second can be corrected by the replacement of the present balloon shed by sheds of a Bush or umbrella type. The midway can be widened by taking away some of the space from the ends of the tracks. It is proposed to widen the track platforms by the acquisition of additional property to the west of the station.

The most formidable feature of the recommendation involves the lengthening of the track by moving the entire body of tracks in the Mill Creek Valley further south of the station. This plan also has the advantage that it would provide space that is urgently required for a passenger train yard immediately adjoining the station and the correction of the inadequacies in baggage, mail and express facilities, engine house facilities, etc.

The report goes into considerable discussion of the developments of suburban service which is now subject to a serious handicap because of the fact that the Union Station is a mile from the business district of the city. It is proposed to correct this by the construction of a suburban station fronting on Market street in the vicinity of Eighth street.

Elaborate Study of Freight Traffic

Probably the most important feature of the investigation made by the Engineers' committee was the exhaustive study made of a movement of carload freight through the St. Louis-East St. Louis terminals. In connection with this, more than 500,000 car records were consulted from which tables and graphic diagrams were prepared to show the

SUMMARY OF AVERAGE NUMBER OF DAYS CONSUMED IN HANDLING THROUGH CARLOAD FREIGHT VIA TERMINAL LINES FROM ARRIVAL IN TO DEPARTURE FROM ST. LOUIS DISTRICT AND LOCAL FREIGHT UNTIL SET AT INDUSTRY.

	Via Eads	Via Merchants	Via Wiggins
Through Movement			
From east side lines to west side lines.....	3.1	2.6	2.8
From west side lines to east side lines.....	3.0	2.1	2.9
From east side lines to east side lines.....	..	3.1	3.3
From west side lines to west side lines.....	..	2.5	3.3
Average Through Movement About Three Days			
Local Delivery			
From east side lines to west side lines.....	3.6	3.1	3.5
From west side lines to east side lines.....	4.0	3.5	3.8
From west side lines to west side lines.....	3.8	3.8	3.9
Average local deliveries about four days			

freight routing for all the railroads. In addition, a time study was made of the car movement, a total of 3,548 cars being selected at random for the purpose of determining the time that was required for the cars to pass through the terminals. The results of these studies are given in the table at the bottom of the preceding page.

The freight traffic studies were made for the month of October, 1920, this being the last normal month prior to the commencement of the study. The volume of business handled that month is given in the table below:

NUMBER OF CARLOADS OF FREIGHT HANDLED IN OCTOBER, 1920

	East Side	West Side	Total
Through carloads brought in by all lines for through movement	60,201	20,030	80,231
Cars loaded at freight houses	6,060	10,724	16,784
Cars loaded at industries and team tracks	15,356	12,827	28,183
Cars unloaded at freight houses	5,723	5,823	11,546
Cars unloaded at industries and team tracks	22,838	30,970	53,808
	110,178	80,374	190,552

NUMBER OF LOADED AND EMPTY FREIGHT CARS CROSSING MISSISSIPPI RIVER AT ST. LOUIS BASED ON OCTOBER, 1920, BUSINESS

	Carloads	Empty cars
Eastbound	41,584	31,832
Westbound	51,032	20,828
Total	92,616	52,660

Careful studies were made of the manner of handling cars which indicated that there was a large amount of lost motion and duplication of effort. Thus, except for freight handled over direct connections between railroads and live and perishable freight, all interchange freight handled by the intermediate switching agencies is classified at least three times. This work is done in over 40 freight yards which are so located that there is a great deal of excess engine and car mileage in back hauls and much delay on account of railroad grade crossings and interference with and by through movements, local switching and passenger trains.

In order to eliminate unnecessary classifications, and unnecessary mileage, and to minimize delays, the committee recommends that the present system, under which railroads classify cars in their own yards for direct connections and for clearing cars for other connections through the Madison yard, the Wiggins yard, and the East St. Louis yard of the Terminal Railroad Association, be changed and that there be substituted therefor direct transfer movement between outer classification yards and the individual railroads. As there is not a sufficient number of cars interchanged each day between each railroad and every other railroad to warrant a direct movement in every case, the committee recommends the assembling of interchange business in several outer group yards. All cars brought in by any road for delivery to any other road would be placed on the receiving tracks of the appropriate group yard.

The management of the group yard, which might be controlled by those roads using the group yard, would classify cars brought in by all roads on to classification tracks for direct delivery to every other railroad. By grouping roads conveniently located in group yards, interchange freight could be handled in solid transfer movements without going through intermediate clearing yards as at present, thus saving one interchange and one classification of a large portion of the cars now handled by the Terminal Railroad Association. It is thought that the present average time of three days for through cars and four days for local cars can be reduced to one-half this time by such grouping and direct delivery.

The committee does not propose that entirely new group yards be constructed. Locations have been suggested where railroads now have at least the nucleus of such yards, and in some cases nearly ample facilities. It is intended that present facilities shall be modified and developed to suit the proposed grouping, with such additions as may be necessary.

In the St. Louis-East St. Louis District less than carload freight is handled by 20 railroads in 25 l.c.l. railroad freight

stations, some of which are located in St. Louis and others in East St. Louis. Nine east side lines have no freight stations in St. Louis, but handle l.c.l. freight in stations at the ends of their lines on the East St. Louis river front and in off-track stations in St. Louis. This latter is true of the four east side lines having freight houses on both sides of the river.

The amount of l.c.l. freight handled by the railroad freight houses during the week of October, 18 to 23, 1920, is given in the following table:

	Tons
St. Louis freight houses—inbound	4,089
St. Louis freight houses—outbound	12,932
East St. Louis freight houses—inbound	3,446
East St. Louis freight houses—outbound	7,702
Total local l.c.l. freight	28,169

The chief problem with respect to l.c.l. freight in the St. Louis-East St. Louis District relates to the improvement of facilities for the business of the so-called East Side lines, having origin or destination on the west side of the river. This may be developed by various methods which together with others that have been considered are outlined as follows:

- (1) Through the individual freight stations in East St. Louis or St. Louis as the case may be.
- (2) Through universal on-track freight stations.
- (3) Through individual on-track freight stations of each railroad to be provided on each side of the river at various locations, and immediately adjacent to the central business district.
- (4) Through the present freight stations and individual on-track freight stations located in St. Louis as close to the business district as practicable, and so close together as to form practically a joint universal station, receiving and delivering freight at certain designated doors for each railroad.
- (5) Through universal off-track freight stations of the various transfer companies.

It is apparent from a study of the present conditions that the first plan will not suffice and must be supplemented by other arrangements. The second plan is not recommended because of the experience with the Terminal Association freight house at Tenth street, St. Louis, which handles only a negligible percentage of the freight to and from the city.

The third plan, that of individual on-track freight stations of each railroad is dismissed because it would add an enormous overhead charge to the business handled. The same decision was reached with respect to the fourth plan after a detailed study for the development of an area between Broadway and the river providing for individual houses of each railroad in a sort of group terminal. The conclusion is that, under present conditions, there would not be sufficient economy nor advantage to the St. Louis shippers or to the east side railroads to justify the construction at this time of St. Louis freight houses for the east side lines. However, if it should be found in future that the development of air rights above freight stations in St. Louis by the construction of multiple story commercial buildings would carry all or a considerable portion of the fixed charges of the freight stations, less saving would be required to justify such a step than if the saving had to carry the entire fixed charges.

Off-Track Stations Recommended

The report draws particular attention to the popularity of the off-track freight station in St. Louis, Mo., to serve the railroads maintaining freight stations on the east side of the river. The east side railroads have arranged with the transfer companies to dray the freight across the river, absorbing their charges and recognizing their off-track stations as the St. Louis freight stations of the east side lines. There are about 20 public transfer companies whose charges between the east side freight houses and the west approach to Eads Bridge are absorbed by the railroads, but only three operate off-track freight stations and are recognized by the railroads in the application of rates to and from such stations.

In the committee's opinion the principle of off-track uni-

versal freight stations is correct, and the facilities should be developed in St. Louis. The system presents the necessary element of flexibility which lends itself to a city whose street traffic is congested and whose commercial industrial districts are widely distributed.

The system promotes the short haul of less than carload freight and the accumulation of such tonnage into lots which can be moved with greatest economy and dispatch to and from the rail haul.

The Engineers' committee responsible for this report consisted of the following: Harland Bartholomew, engineer, City Plan Commission of St. Louis; P. W. Coyle, traffic commissioner, St. Louis Chamber of Commerce; E. A. Hadley, chief engineer, Missouri Pacific; J. B. Hunley, engineer, bridges and structures, Cleveland, Cincinnati, Chicago & St. Louis; R. D. Sangster, industrial commissioner, St. Louis Chamber of Commerce; C. E. Smith, consulting engineer for City of St. Louis; F. J. Stimson, chief engineer maintenance of way, Southwestern region, Pennsylvania Lines; D. O. Thomas, consulting engineer for East St. Louis Chamber of Commerce; F. G. Jonah, chief engineer, St. Louis-San Francisco and Charles H. Diel, secretary, formerly secretary Municipal Development Bureau, St. Louis Chamber of Commerce.

Freight Car Loading

WASHINGTON, D. C.

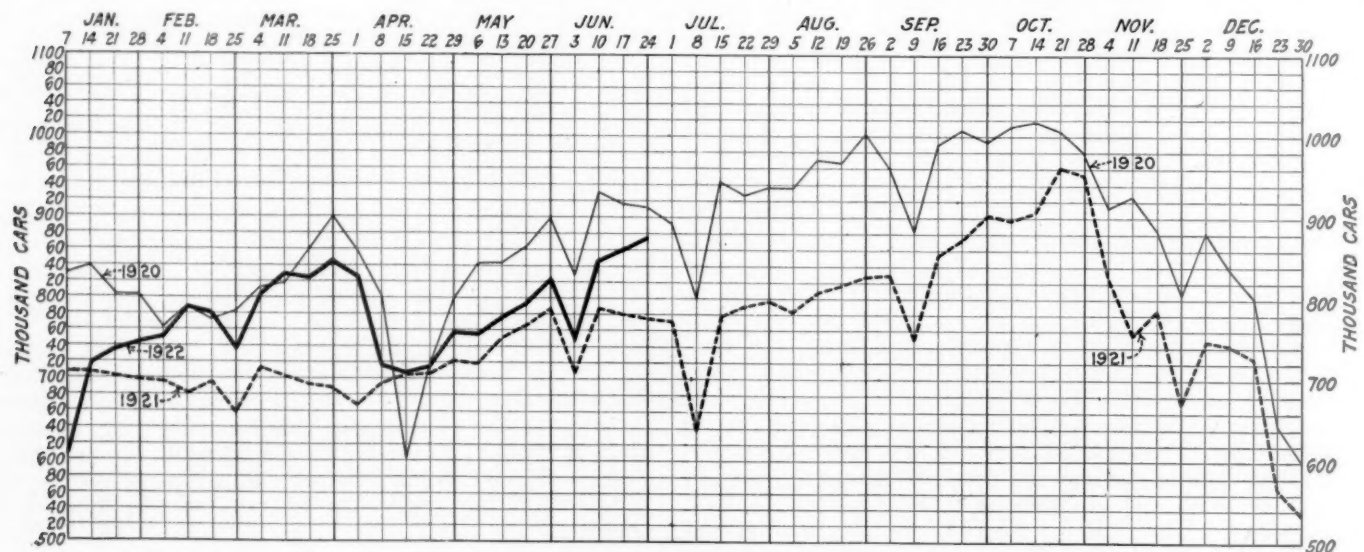
THE NUMBER OF CARS loaded with revenue freight showed another large gain during the week ended June 24 to a total of 877,856, as compared with 775,447 during the corresponding week of 1921 and 911,503 in the corresponding week of 1920. The gain over the preceding week was 17,084 cars and the fact that unusually large increases had been shown in earlier weeks indicates that instead of holding back freight to await the 10 per cent reductions in freight rates on July 1, as had been considered probable, some shippers may have hastened their shipments because of the threatened railroad strike. The loading of coal during the week of June 24 was 96,960 cars, which was the largest since the coal strike began on April 1, but the total car loading was 102,000 cars greater than during the corresponding week of last year and only 33,000 cars less than in 1920 in spite of the fact that coal loading was 59,061 cars less than in 1921 and 98,539 less than in 1920. Increases as compared with last year were shown in all districts and in all classes of commodities except grain and grain products.

The Car Service Division has published the accompanying chart comparing the cumulative car loading from January 1

REVENUE FREIGHT LOADED

SUMMARY--ALL DISTRICTS, COMPARISON OF TOTALS THIS YEAR, LAST YEAR, TWO YEARS AGO. WEEK ENDED SATURDAY, JUNE 24, 1922

Districts	Year	Grain and grain products	Live stock	Coal	Coke	Forest products	Ore	Mdse. L.C.L.	Miscellaneous	Total revenue freight loaded		
										This year 1922	Corresponding year 1921	Corresponding year 1920
Eastern	1922	9,283	2,803	8,200	1,703	5,486	6,038	71,301	90,683	195,497	186,840	223,782
	1921	6,421	2,960	41,503	903	5,087	1,882	58,538	69,546	119,428	186,840	223,782
Allegheny	1922	2,129	2,377	19,029	4,721	3,330	12,018	52,734	77,005	173,343	159,428	182,399
	1921	2,281	2,719	47,333	2,362	2,907	6,891	43,933	51,002	119,428	159,428	182,399
Poconantas	1922	183	129	31,460	260	1,680	25	6,357	4,021	44,115	36,169	33,863
	1921	140	148	25,237	144	1,259	23	5,336	3,882	36,169	36,169	33,863
Southern	1922	3,370	2,385	24,117	836	19,839	1,152	37,475	41,262	130,436	111,773	124,101
	1921	2,935	2,112	19,342	449	14,421	460	35,746	36,308	111,773	111,773	124,101
Northwestern	1922	9,325	8,473	6,940	1,538	19,192	41,826	31,354	40,298	158,046	116,171	158,156
	1921	11,067	8,007	5,239	560	13,819	18,172	27,656	31,651	116,171	116,171	158,156
Central Western	1922	10,000	11,152	5,152	232	6,586	2,769	34,068	45,420	115,319	109,159	127,885
	1921	11,584	9,741	13,407	160	6,289	719	31,155	36,104	109,159	109,159	127,885
Southwestern	1922	4,121	2,615	2,962	176	8,158	456	15,964	26,648	61,100	55,907	61,317
	1921	4,671	2,246	3,960	136	6,150	806	15,401	22,537	55,907	55,907	61,317
Total Western districts	1922	23,446	22,240	14,154	1,946	33,936	45,351	81,326	112,366	334,465	281,237	347,358
	1921	27,322	19,994	22,606	856	26,258	19,697	74,212	90,292	281,237	281,237	347,358
Total, all roads	1922	38,411	29,934	96,960	9,466	64,271	64,284	249,193	325,337	877,856	775,447	911,503
	1921	39,099	27,933	156,021	4,714	48,932	28,932	217,765	251,030	775,447	775,447	911,503
	1920	34,668	28,774	195,499	11,882	60,669	73,675	158,944	347,392	911,503	911,503	911,503
Increase compared	1921	2,001	2,001	59,061	4,752	14,339	35,331	31,428	74,307	102,409	102,409	102,409
Decrease compared	1921	688	688	59,061	4,752	3,602	3,602	90,249	90,249	90,249	90,249	90,249
Increase compared	1920	3,743	1,160	98,539	2,416	9,391	9,391	22,055	33,647	33,647	33,647	33,647
Decrease compared	1920	688	688	98,539	2,416	9,391	9,391	22,055	33,647	33,647	33,647	33,647
June 24	1922	38,411	29,934	96,960	9,466	64,271	64,284	249,193	325,337	877,856	775,447	911,503
June 17	1922	39,333	29,151	92,136	9,302	64,082	53,822	248,044	324,902	860,772	775,328	916,736
June 10	1922	40,035	29,765	94,824	9,008	62,358	46,372	248,405	515,235	846,002	787,283	930,976
June 3	1922	37,931	27,792	86,626	8,927	58,923	31,552	217,254	281,640	750,645	693,903	828,907
May 27	1922	45,712	29,502	91,370	8,851	64,020	23,871	247,331	310,464	821,121	795,335	898,169



Revenue Freight Car Loadings Up to June 24, 1922

to June 17 this year with that for the preceding four years. This shows that the loading this year, nearly 18½ million cars, considerably exceeds that for last year or 1919, but, mainly owing to the light coal loading during the strike, is below that for 1918 or 1920. The year 1920 exceeded the

proximated by way of estimates from the experience of previous years as to what the trend of car loading is likely to be for the balance of this year and what conditions may be expected in the way of car supply to meet the requirements.

The number of bad-order freight cars was reduced from

REVENUE FREIGHT LOADED — TOTAL ALL DISTRICTS
CUMULATIVE JANUARY 1st TO JUNE 17th

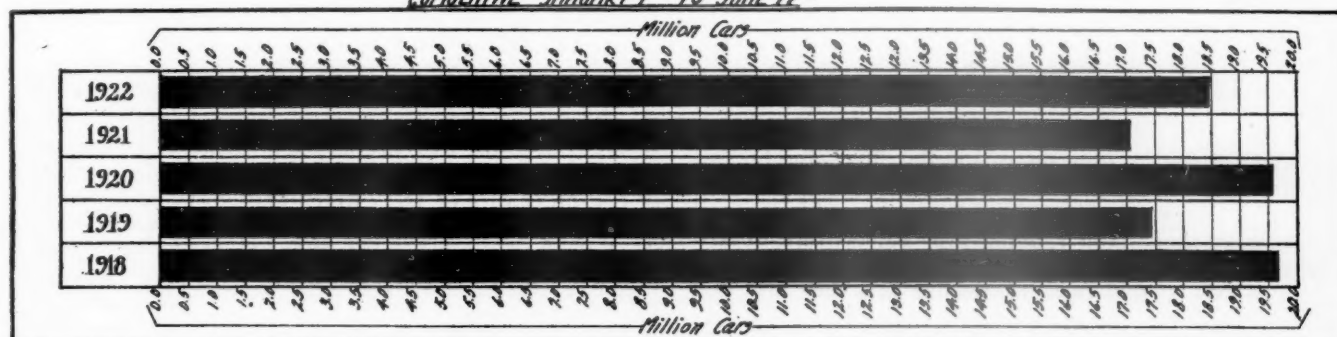


Chart Showing Increased Traffic in 1922

year 1918 but the loading for the first part of the year was somewhat less than that of 1918 because of the switchmen's strike. The Car Service Division is planning to issue a bulletin presenting such conclusions as may be safely ap-

proximated by way of estimates from the experience of previous years as to what the trend of car loading is likely to be for the balance of this year and what conditions may be expected in the way of car supply to meet the requirements. The number was 332,681, of which 268,305 required heavy repairs.

Coal Loadings Elimination Fails to Hurt Big Four

**Traffic Received from Connections Increases Sufficiently
to Balance Effect of Strike**

THERE ARE at present two factors of leading interest in Big Four operations. One is the gradually improving position of the property from a traffic and earnings standpoint. The other is the peculiar effect the coal strike is having on Big Four operations; in spite of the fact that not a single coal mine on its own lines is in operation, the road is benefiting from the shutdown of the union mines because of the volume of non-union coal which is being received from connections.

The improvement in the Big Four's position is one of the interesting developments in the New York Central System. The Big Four in recent years has been showing somewhat the same favorable results of the parent company; and its progress, except for the difference in degree, has not been unlike that of its sister company, the Michigan Central. The Big Four had a standard return for operations during federal control of approximately \$10,000,000. In 1918 it earned for the government nearly \$15,000,000; in 1919, about \$13,000,000. In 1920 it did not do so well, but its net after rentals for the year of about \$8,500,000, after charges made to maintenance equalization reserves, was not at all bad considering 1920 conditions. In 1920, also, the Big Four fared rather well during the last four months of the year, its net railway operating income for that period being over \$5,000,000.

In 1921 the road's net after rentals was \$10,000,000, thus putting the Big Four practically on a pre-war or standard return basis in spite of the falling off in traffic by which 1921 was unfortunately characterized. The Big Four's corporate net in 1921, according to the recently issued annual report, was \$2,326,617; this compared with \$5,323,339 in 1920.

The road pays five per cent on its preferred stock, the dividends amounting annually to \$499,925. The figure of corporate net is after the deductions of these dividends. Under the conditions as a whole and even with the fact that the 1921 corporate results were not as good as the 1920, it is not to be wondered that the directors should have decided in May to declare a dividend on the common stock of two per cent. This is the first dividend disbursement on the common stock since September, 1910.

Only 4 Cars of Coal Reported Loaded Since April 1

Since the beginning of the coal strike the road has loaded only four cars of coal, one car being reported for the week ending April 8 and the other three for the week ended June 17. At this time last year the road was loading from 2,000 to 2,300 cars weekly. In spite of this fact, the Big Four has been showing improved results since the strike. In April, for instance, it handled 435,682,000 net ton-miles of freight (including revenue and non-revenue) as compared with 412,843,000 in April last year. For the first four months of 1922 its total net ton-miles were 2,065,554,000 as compared with 1,788,008,000 last year. Further, in April the road had a net after rentals of \$1,016,441 as compared with \$204,517 in April last year. For the first four months its total was \$4,526,507 as compared with \$1,290,215. It had an operating ratio in April of 73.90; for the four months of 74.60.

In March, when it was moving coal in anticipation of the strike, it got its ratio down to 66. The reason for these favorable figures in spite of the elimination of its coal loadings is to be attributed to the increase in the volume of other traffic due to reviving industrial conditions, but primarily to the large volume of coal traffic received from connections,

notably the Louisville & Nashville. For the purpose of putting this in more graphic form, the following figures of coal loadings, total loadings and cars received from connections are given. The figures selected are those of the third week in each of the last four months.

Week ending	Coal loadings		Total loadings		Received from connections	
	1922	1921	1922	1921	1922	1921
March 18.....	4,115	2,182	12,267	9,476	17,822	14,142
April 15.....	0	1,667	8,592	9,299	14,684	13,100
May 20.....	0	2,307	9,033	10,090	20,737	14,795
June 17.....	3	2,089	9,543	10,049	22,255	14,161

Coal from L. & N. Big Factor

The Louisville & Nashville is one of those roads which has benefited greatly from the coal strike, this being because it serves an extensive and as yet but partly developed non-union area in eastern Kentucky. Its loadings for the past several weeks have been running over 12,000 cars weekly. There have been one or two recent weeks that the loadings have run over 15,000 cars, whereas at this time last year Louisville & Nashville coal loadings were running less than 10,000 weekly. A large share of this traffic is turned over to the Big Four for movement northward from Cincinnati and from Louisville. The Big Four, therefore, in spite of the elimination of the coal mining on its own lines, is not being hurt by the strike, and in spite of the fact that it serves union fields, is being helped quite considerably by the movement from the non-union fields.

The Big Four has a rather diversified tonnage. There has been a tendency towards an increasing movement of coal and in recent years the proportion of coal has run about 50 per cent of the total tonnage. The road participates in the movement of perishable products eastbound from St. Louis and holds its own in this traffic. One of the characteristics of the road is its large amount of interchanged traffic which is a natural result of its location. The coal which the Big Four lines originate is received in Indiana and Illinois. The road serves 50 mines in Illinois and 25 in Indiana including 20 on the Evansville, Indianapolis & Terre Haute, a controlled property (since November 1, 1920) but separately operated. The coal which is received from the Louisville & Nashville reaches the Big Four at Cincinnati and Louisville. From Cincinnati the larger part of the movement is to the west and northwest to Chicago, or to Detroit, Toledo, Cleveland, etc. That received at Louisville is mainly destined to Chicago. The Big Four normally does not move a very large amount of coal to Lake Erie ports for lake movement.

The 1921 Results

In 1921, as was noted, the Big Four had a corporate net after the preferred dividends of \$2,326,617. On December 31, 1921, it had a profit and loss credit balance of \$18,885,959. The distinguishing features of operations during the year were not quite typical of those of most of the country's railroads. There was a reduction in revenue tons and a reduction in revenues, but the reduction in operating expenses was less than the reduction in revenues which is unusual as compared with the results shown in 1921 by most other lines.

The revenue tonnage in 1921 was 30,043,632 as compared with 38,513,685 in 1920, a reduction of 8,470,053. About one-half of the decrease was in the tonnage of bituminous coal. The freight revenue in 1921 was \$56,289,898, a reduction of \$4,535,557. The 1921 total operating revenues were \$79,793,593. These compared with \$88,862,078 in 1920, the reduction being \$9,068,485. The Big Four in 1920 charged off certain sums for equalization of maintenance, the larger part of which is credited in 1921. It is not necessary to emphasize this factor particularly, because reference to similar procedure has already been made in the reviews which have appeared in these columns of the New York Central and Michigan Central annual reports. However, it should

be noted that the charges made to equalization of maintenance of way in 1920 were \$2,057,145, and to maintenance of equipment \$658,740. Excluding these maintenance reserves and their credits in 1921, the operating expenses for the latter year were \$66,597,189. This amount was \$5,322,196 less than in 1920.

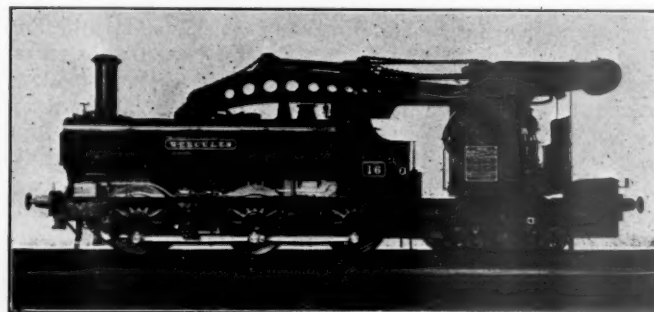
There was an actual increase of \$1,398,578 in maintenance of way expenses. The reduction in maintenance of equipment was only \$783,981, the 1921 figure being \$18,513,988. The transportation expenses in 1921 were \$33,005,071, a decrease of \$6,025,788. The reason for the comparatively smaller decrease in expenses as compared with the decrease in revenues is not in evidence from the annual report. In-so-far as concerns maintenance of equipment, it to be noted that on June 15 the Big Four had a percentage of bad-order cars of 18.1, which appears to be rather high.

Big Four operating statistics naturally show the effect of the falling off in traffic. In 1921 the road's revenue train load was 707 tons as compared with 799 in 1920. Its average car load was 27.1 as compared with 28.8. The road in 1921 had an average haul of 177 miles, 1.5 miles less than in 1920. Its revenue traffic density in 1921 was 2,232,219 as compared with 2,871,527 in 1920.

Improvements

The Big Four, in common with the other parts of the New York Central, has in recent years made large expenditures for the physical improvement of the property. In 1921 it completed double tracking work as follows: Columbus, Ohio, to Avenue, 4.3 miles; Briar, Ind., to Beech Grove, 9 miles; Augusta, Ind., to Whitestown, 11 miles; Templeton, Ind., to Swanington, 6 miles; Winchester, Ind., to Farmland, 9 miles. Some of these projects are to assist in handling increased traffic, others include relocations and grade revisions to permit heavier tonnage. In one case the project permits adding 500 tons to the train load behind the heavy Mikados.

Work under way or contemplated includes a second track from Farmland to Muncie, 10 miles. At Delaware, Ohio, a 3½-mile single track cut-off is planned for the purpose of grade reduction and to save 2½ miles for through trains on the Cleveland division between Columbus and Galion. In connection with this grade revision work it is worth noting that the Big Four in the last 12 years has spent something like \$60,000,000 to \$70,000,000 for grade revision. Other Big Four projects include the grade separation and station work at Indianapolis, engine terminal facilities at Ansonia, Ohio, and Sheff, Ind. The road has recently installed automatic signals on the new double track line between Galion, Ohio, and Berea. It is hardly necessary to say much concerning the large increases made in recent years in the way of equipment. The New York Central Lines, as a whole, have accomplished a great deal in this respect and the Big Four has played its part in the whole situation.



A Combined Locomotive and Crane

Designed by C. B. Collett, chief mechanical engineer of the Great Western of England. Tractive effort 17,410 lb., lifting capacity 6 tons at 18-ft. radius, or 9 tons at 12-ft. radius.

Effect of Tonnage and Speed on Fuel Consumption*

Ton Miles Per Hour Affects Fuel Rate; Economical Tonnage For Various Speeds, Effect of Grade and Car Weight

By J. E. Davenport

Engineer, Dynamometer Tests, New York Central

THIS DISCUSSION touches the subject of the economic train load or train speed purely from the standpoint of fuel. Admitting that many times other operating conditions, or costs, or returns, finally settle the question of train load, it is altogether fitting that this association approach the discussion with entire attention directed toward the fuel consumption. The tonnages referred to herein are gross tons of 2,000 lb., not adjusted tons.

A train hauled by a locomotive is a unit made up of two components. The first component, the locomotive, is a ma-

chine capable of exerting a maximum drawbar pull at low speeds, and capable of producing a maximum dynamometer horsepower output at some higher speed dependent upon its dimensions (in the case of the modern Mikado this speed is around 30 miles an hour), but in terms of useful work per unit of fuel consumed the maximum efficiency is neither at the maximum dynamometer pull nor the maximum dynamometer horsepower.

A modern Mikado type locomotive capable of exerting a dynamometer pull of some 60,000 lb. at speeds below eight or ten miles an hour, and a dynamometer horsepower of some 2,500 at speeds in the neighborhood of 30 miles per hour, shows its maximum efficiency from the fuel standpoint while producing a dynamometer horsepower output in the neighborhood of 1,400, and this output may be produced at any operating speed above approximately 10 miles per hour. The second component, the train, is a machine capable of being hauled most efficiently, as expressed in terms of resistance to hauling, at the lowest possible speeds and in car units of the highest possible weights which can be placed on four-wheel trucks. This statement may need modification when more knowledge is at hand concerning resistance of cars equipped with other than four-wheel trucks. The great number of variables entering into the makeup of the train unit indicates the reason that the question of economic train load is one so difficult of ready solution in all its phases, including the fuel rate. The most efficient fuel

performance occurs somewhere between the most efficient locomotive performance and the most efficient train haulage performance. The foregoing roughly expressed generalities are shown graphically in Fig. 1. That portion of each curve marked with an X indicates the most efficient point of operation as related to that component of the train unit.

There are, possibly, many methods of arriving at the relation of load and speed to fuel consumption of which the following is suggested for your consideration. Two commonly accepted principles form the foundation of this method: First, the locomotive component of the train unit develops useful power related definitely to the fuel consumed. Second, the train resists haulage in terms related definitely to the grade, including curvature, speed and weight of the individual cars.

The production of useful power and its relation to fuel consumption is shown in Fig. 2, wherein the dynamometer horsepower developed is plotted against the coal consumed per hour. The curves are plotted from figures developed at

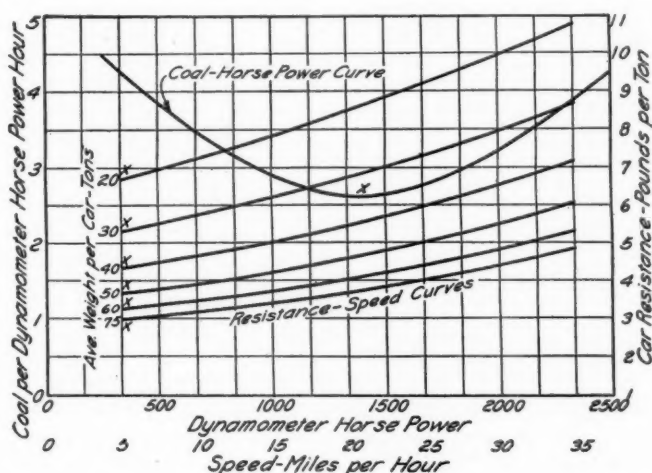


Fig. 1—Relation of Locomotive Fuel Consumption and Train Resistance to Train Speeds

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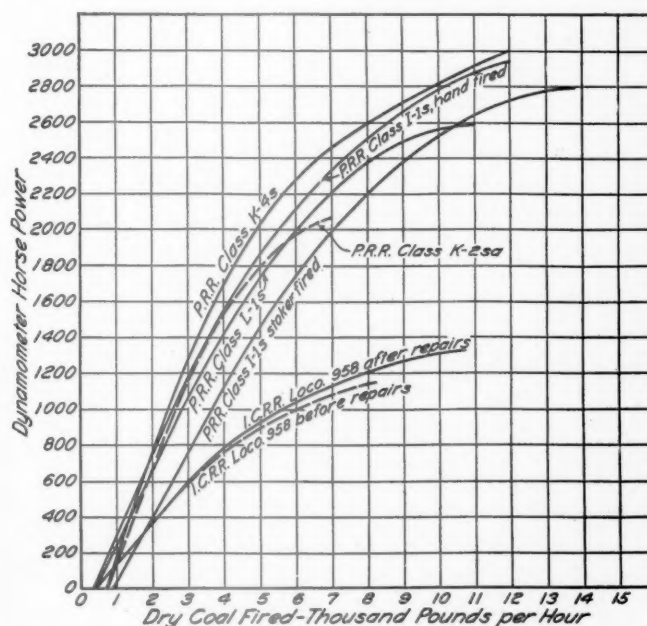


Fig. 2—Showing the Increasing Rate of Fuel Consumption in the High Ranges of Horsepower Output

the Pennsylvania and University of Illinois locomotive testing plants and represent the most reliable information obtainable on locomotive performance. It will be noted that at the point of maximum horsepower output the coal consumption increases most rapidly with each unit of power produced. The resistance to haulage is shown in Fig. 1. These curves are reproduced from the University of Illinois studies on Freight Train Resistance. The values shown therein were substantially checked by the writer several years ago, and it is felt under average conditions these curves are entirely acceptable as a measure of car resistance.

Using the Pennsylvania Class L1s Mikado tests reported.

*Abstract of a paper presented before the International Railway Fuel Association, Chicago, May 22, 1922.

in Bulletin No. 28, Figs. 4, 5, 6, 7 and 8 are submitted, showing in each case the consumption rates while the locomotive is working steam. Fig. 3 shows the relation between speed and coal as fired per thousand ton miles behind the tender with cars of 50 tons gross weight on tangent level track under the development of 40, 50, 60, 70 and 80 thousand ton miles per train hour, indicating a reduced fuel consumption at a set speed with increased ton mile production and a rapidly increasing consumption at a set ton mile production with an increase of speed.

Fig. 4 shows the relation between speed and coal as fired per thousand ton miles behind the tender with cars of 50 ton gross weight for trains of varying weight on tangent level track. These curves indicate that for each weight of train there is a speed of minimum fuel consumption; the lighter the train the higher this speed. Also they indicate the rapid increase of consumption with increase of speed beyond the point of minimum consumption; the heavier the train the more rapid the increase in consumption. It is interesting to note that the 2,000-ton train and the 8,000-ton train consume the same amount of fuel at 22 miles per hour, but by operating the 8,000-ton train at 11 miles per hour its coal con-

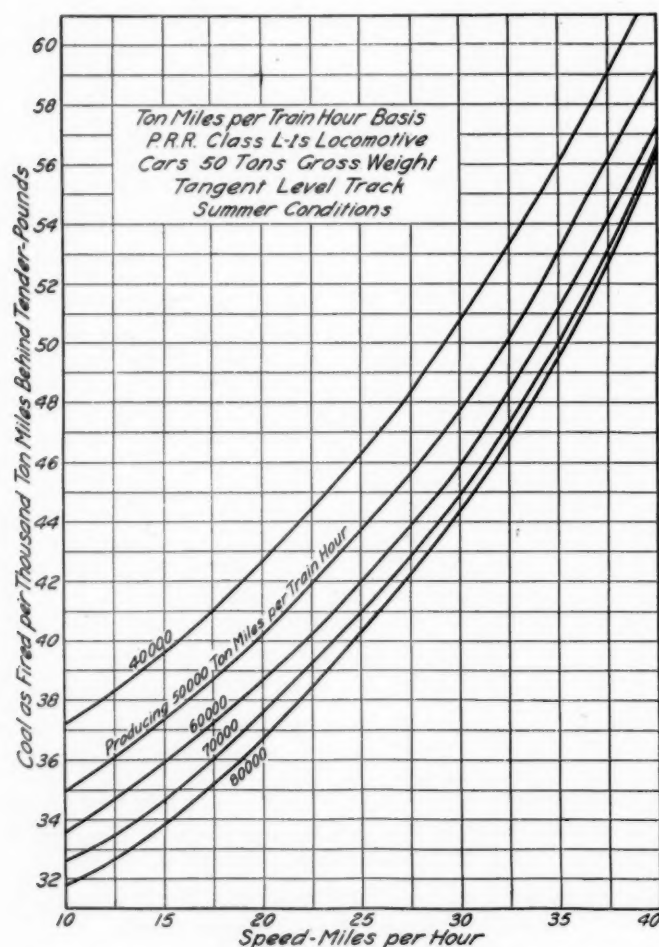


Fig. 3—Relation of Speed to the Ton-Mile Fuel Rate for Various Rates of Ton-Mile Output

sumption may be reduced to 75 per cent of the minimum possible with the 2,000-ton train.

Fig. 5 shows the relation between train load and coal as fired per thousand ton miles behind the tender with cars of 50 ton gross weight, operating at various speeds on tangent level track. These curves locate 20 miles per hour as the most economical speed for a train of from 2,000 tons to 2,500 tons, 15 miles per hour for trains from 2,500 to 6,000 tons and 10 miles per hour for trains from 6,000 to 8,000 tons,

these economic speeds of course would be altered slightly had other individual speed lines been shown. These curves indicate that for 10 miles per hour operation the train tonnage should be over 8,000 tons for minimum consumption; for 15 miles per hour operation, between 7,000 and 8,000 tons; for 20 miles per hour operation, 4,500 to 5,500 tons; for 25 miles per hour operation, around 4,000 tons; for 30 miles per hour operation, slightly under 3,000 tons; for 35 miles per hour operation, slightly under 2,500 tons; and for 40 miles per hour operation, something less than 2,000 tons.

Fig. 6 shows the relation between speed and coal as fired

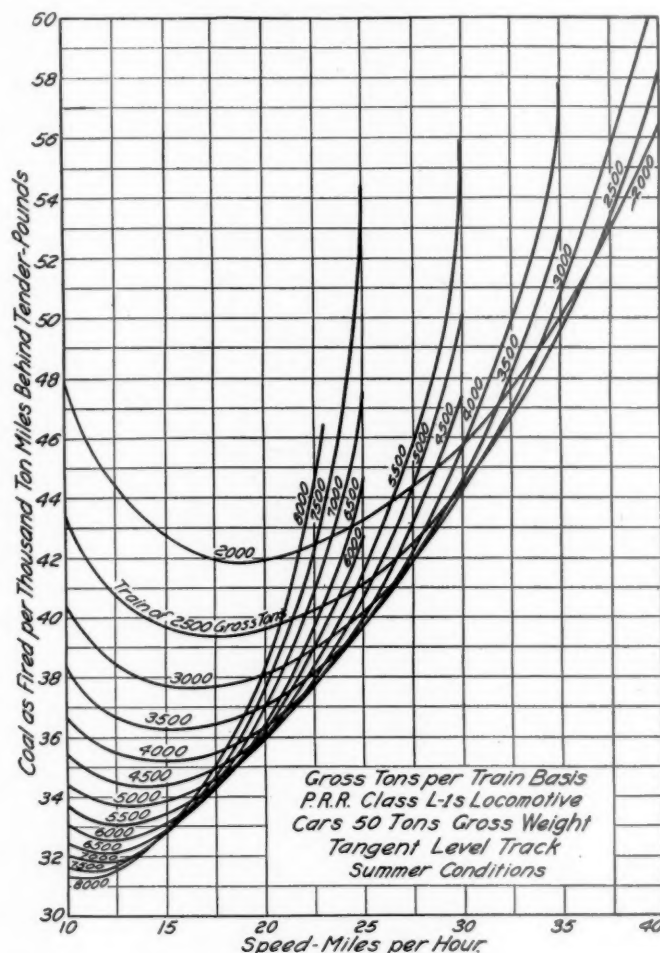


Fig. 4—Speed-Fuel Rate Characteristics of Trains of Various Weights

per thousand ton miles behind the tender with 40 cars of 50 tons gross weight (2,000 ton train) on tangent level track and tangent grades of .1 per cent, .2 per cent, .3 per cent, .5 per cent, .8 per cent and 1 per cent. These curves emphasize the effect of speed and grade on fuel consumption and indicate that the heavier the grade, the less the speed at which minimum fuel consumption may be expected. For example, the minimum rate on a 1 per cent grade is 199 lb. per thousand ton miles at 8 miles per hour, and on level track 42 lb. at 18 miles per hour. Also it requires 10 per cent more fuel at 14 miles per hour on a 1 per cent grade than at 8 miles per hour.

The foregoing charts having dealt with cars of 50 tons gross weight, a figure close to the average for eastbound loads on trunk line roads, Fig. 7 is produced to indicate the relation between speed and coal as fired per thousand ton miles behind the tender for the empty car return movement, cars of 20 tons gross weight, on tangent level track. These curves indicate the same relation as with the loaded cars: a minimum consumption for each train weight at some definite

speed, the lighter the train the higher the speed. They also indicate that for operating speeds between 10 and 20 miles per hour a train of 150 cars shows the most economical performance; between 20 and 24 miles per hour, trains of 125 cars; between 24 and 30 miles, trains of 100 cars; between 30 and 36 miles, trains of 75 cars, and between 36 and 40 miles per hour, trains of 50 cars. Comparing the minimum consumption of 2,000 ton trains in Figs. 5 and 8, it is noted that the empty car train requires 60 per cent more fuel than the loaded train. This indicates the importance of the empty car movement in any fuel economy program.

Practical Application

Using recent dynamometer car tests with a 4-8-2 type locomotive, computing the train resistance established for level

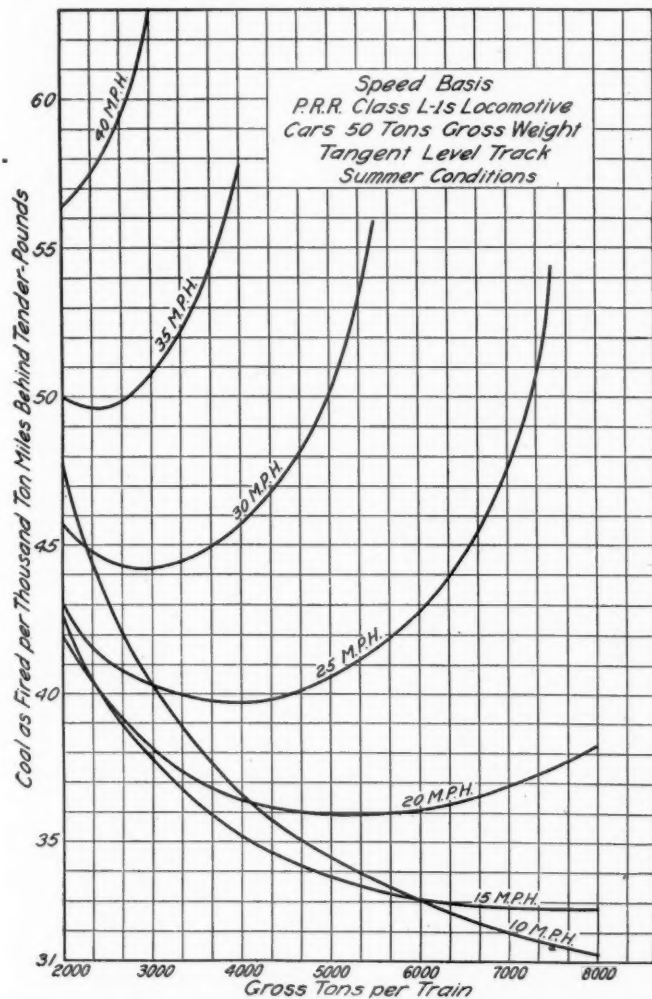


Fig. 5—Curves Showing the Economical Tonnages for Various Operating Speeds

tangent track and relating this figure to the actual average dynamometer pull recorded, there is located what might be termed the equivalent grade for this territory. In Fig. 8 there is plotted the relation between the coal as fired per thousand ton miles behind the tender and speed for trains of cars of 35 tons weight, and trains of cars of 55 tons weight, both sets of curves making use of the equivalent grade figure of .06 per cent. The trains shown in the upper group, i. e., of 35 ton car weight, represent trains falling in the fast freight service and trains in the lower group, i. e., of 55 ton car weight, represent trains falling in the slow freight service.

Analyzing the operation from the curves shown in Fig. 8 for the period of 1921, covering the five summer months, in the fast freight service an average load of 2,675 tons was

handled at an average operating speed of $19\frac{1}{2}$ miles per hour, and in the slow freight service an average load of 5,750 tons was handled at an operating speed of 15 miles per hour. This fast freight service from the foregoing analysis shows the coal consumption of 76.6 lb. per thousand ton miles and the slow freight service a coal consumption of 54 lb. per thousand ton miles, showing an increase of 41 per cent in fuel for the fast freight service over the slow freight. A

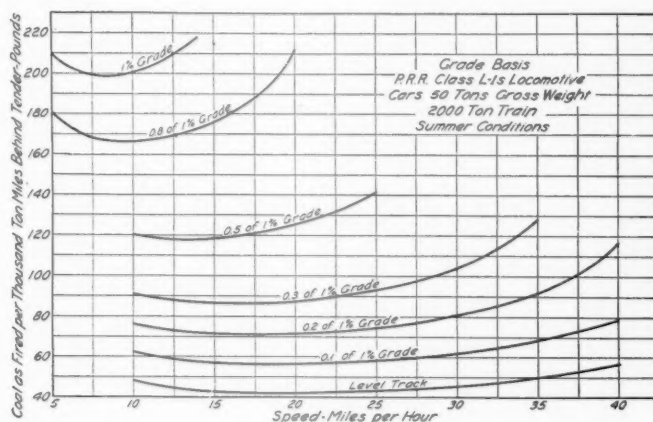


Fig. 6—How Grade Affects the Relation Between Speed and Unit Fuel Consumption

similar check of a different class of power in another territory, indicating an equivalent grade of .085 per cent, shows a coal consumption of 84 lb. per thousand ton miles in fast freight service and 63 lb. in slow freight, or an increase of 33 per cent in fuel in the handling of fast freights, which increase results from the combination of a higher speed, lighter train load and lighter individual car weight.

Many errors are made by the yard forces in computing the size of the individual train in both fast and slow freight trains. These errors in numerous cases on the slow freight side amount to as high as 20 per cent in the tonnage ordered and on the fast freight side running at times to 15 per cent.

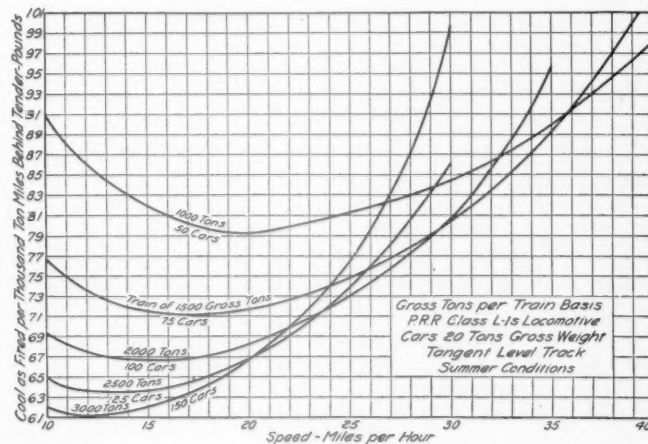


Fig. 7—Speed-Fuel Rate Characteristics of Trains of Light Weight Cars

When errors of this nature produce a train heavier than is ordered the resultant will produce a more economical coal consumption since the operating speed in this service is from 14 to 20 miles per hour. However, when the error results in an underload of from 10 to 15 per cent the increase in the operating speed of this particular unit will result in an increased coal consumption as high as 10 per cent or 12 per cent.

3,000 gross tons or more, reduction of delays will cause the running speed of lowest unit wage cost to approach the running speed of lowest unit fuel cost, resulting in a cumulative lowering of the combined unit cost. It appears that for the trains of less than 3,000 the running speed for the lowest possible combined unit cost is around 20 miles per hour. It should be kept in mind that the table and these conclusions are based upon the condition of tangent level track.

It appears to be entirely practicable for the interested

local operating officer to advantageously apply the principle here outlined to the particular conditions surrounding his operation or at least to the portion covered by regular runs which vary only slightly in character. Such an application for use as a standard of performance for specific locomotive runs would only require the establishment of the so-called equivalent grade of the run and the stating of the other controlling conditions from observation of the possibilities of the particular operation.

Central of Georgia Perishable Traffic Big Factor

Corporate Deficit in 1921 of \$979,814, Net Railway

Operating Income \$1,220,655

THE CENTRAL OF GEORGIA, all the common and preferred stock of which is owned by the Illinois Central, represents an extension of the latter's lines into Alabama and Georgia. As an Illinois Central property it reflects the same efficiency of operation which is characteristic of the parent company. One of the features of Illinois Central activity of late has been its work in the matter of public relations. The Central of Georgia has adopted similar plans in connection with this work. It has given it proportionately as great importance and it has been having marked success.

The Illinois Central and the Central of Georgia connect at Birmingham, Ala., but there is a large volume of traffic which moves through Atlanta, thence over the Nashville, Chattanooga & St. Louis, reaching the Illinois Central at Martin, Tenn. The Central of Georgia's traffic is rather diversified. About one-fourth its tonnage is bituminous coal, about 14 per cent lumber, and about 25 to 30 per cent, manufactures. The traffic of greatest interest, however, is perishables, notably peaches and watermelons. The company's lines serve the Georgia peach area and the company is said to be the largest originator of peach traffic of any road in the United States. The peaches originate in a restricted area, about 75 per cent being secured in a district of about 50 miles radius centering on Fort Valley or Marshallville. This area is gradually increasing in size. In June, 1921, there were on the Central of Georgia lines 7,443,000 peach trees of which 6,261,000 were bearing. The most important feature in connection with the peach traffic is the limited time in which it moves. It is confined to a 60-day period and the larger part of it to 30 days. During 1921 the Central of Georgia handled 8,170 cars of peaches moving under refrigeration. Of this it originated 7,619 cars and an indication of the restricted area from which the traffic is derived is given by the fact that of the total 7,192 cars moved from one division. The largest day's movement of peaches has been 544 cars.

The larger part of the peach traffic moves to Macon and thence to Atlanta. At the latter point it is delivered to the Nashville, Chattanooga & St. Louis for movement over that line to Martin, Tenn., where, as has been previously noted, it reaches Illinois Central rails. Some idea of the problem presented is conveyed by the fact that in the height of the season the company averages 41 trains daily, inclusive of passenger service, between Fort Valley and Macon. From Fort Valley to Atlanta is mostly single track protected by automatic block signals. The peach traffic is growing in volume and the estimates are that before many years it will exceed 10,000 cars a season.

The watermelon traffic is likewise heavy and much of it as well as other perishable traffic is received during the peach season. During the 1921 season the road originated 3,802 cars of watermelons and handled a total of 8,864 cars.

The Central of Georgia also participates in the perishable traffic from Florida. It receives a large movement of pineapples from Cuba. Much of this traffic is received from the Atlantic Coast Line at Albany, Ga., and moves thence to Birmingham or Atlanta, where it is delivered to connections.

1921 Results

For the year ended December 31, 1921, the Central of Georgia reported a corporate deficit after fixed charges of \$979,814. The five per cent dividends on its common stock and the six per cent on its preferred, all accruing to the Illinois Central, were paid, but from surplus. The 1921 deficit compared with a net income in 1920 of \$1,516,707. The decrease was due to the fact that the road, operating on its own account, did not secure a net from operations as great as the corporation received in 1920 with the assistance of standard return for two months and guaranty for six. In 1920, also, it included in its income account an extra dividend of \$40 per share amounting to \$799,640 on the stock of its subsidiary company, the Ocean Steamship Company, whereas in 1921 it received from this source only the regular dividends.

The net railway operating income or net after rentals in 1921 was \$1,220,655. This compared with a deficit after rentals in 1920 of \$1,553,191. The standard return for the property was \$3,408,809, so it will be seen that the road was unable to report its return to normalcy in spite of the marked improvement made in operating results.

The road at present, incidentally, is doing very much better than it did in the early part of 1921. Up to the end of April in 1921 it had reported a net after rentals of only \$2,471. In the first four months of 1922 it had a net after rentals of \$287,794. Its operating ratio for this period was 80.80. The improvement in net has not been due to increased traffic, as is indicated by the fact that in the first four months of this year it reported 401,121,000 net ton-miles (revenue and non-revenue freight) as compared with 452,990,000 net ton-miles in the first four months of last year. The road has been hurt to some extent by the coal strike, its coal loadings having fallen off from one-third to one-half. Coal, however, is not a very important factor on the Central of Georgia.

Referring again to the improvement in operating results in 1921 as compared with 1920, the facts are that the road suffered as between the two years a decrease of 13.3 per cent in revenue ton-miles. There was a decrease of 5.94 per cent in its freight revenues and a decrease of 12.06 per cent in its total operating revenues. The 1921 freight revenues were \$13,565,644 as compared with \$15,485,718 in 1920. The total revenues were \$22,057,499 as against \$25,082,288 in 1920, the decrease being \$3,024,790. The decrease in operating expenses was \$5,712,525 or 22.2 per cent, the

1921 figure being \$20,020,843, and that for 1920, \$25,733,367. In 1920 the road operated at a ratio of 102.6; in 1921 this was reduced to 90.77. In 1917, to take a pre-war example, the operating ratio was 68.93, all of which indicates that the Central of Georgia is not yet on a pre-war basis of earnings.

Analysis of the reductions in operating expenses shows that in 1921 as compared with 1920 maintenance of way expenses were reduced 30.22 per cent; maintenance of equipment, 23.56 per cent; and transportation, 22.3 per cent. The reasons for these decreases were the smaller amount of traffic, decreases in wages and material costs generally and in the case of maintenance, "to decreased expenditures for repairs," meaning presumably that there was less work done. A distinguishing feature was the saving in fuel due to an intensive campaign for fuel economy. The company estimates that by better performance it saved 91,265 tons or \$350,999. Freight loss and damage was reduced \$351,054 or 70.8 per cent.

Improvement in Physical Condition

Some interesting figures have been compiled relative to improvements in the Central of Georgia's physical characteristics in recent years. The road began the use of treated ties in 1912, having its own treating plant at Macon, Ga. By using creosoted ties it has reduced its annual tie renewals by 330,000. At present in main line and side tracks 55 per cent of the ties are treated. The road uses 90-lb. rail. In 1916 it had 121 miles of 90-lb. rail and in 1921, 354 miles. The improvement in rail condition is given in these figures: On December 31, 1916, there was in track 212,977 tons of rail with 1913.66 miles of line. On December 31, 1921, there were 227,556 tons of rail with 1914.4 miles of track, an increase of 14,579 tons in the five-year period. The improvement program has also included the replacement, insofar as possible, of timber trestles and there has been a large amount of ballasting. Another improvement is the new engine terminal at Columbus, Ga., costing about \$750,000 which project has already been described in the *Railway Age*.

The Central of Georgia has made much out of the possibilities of public relations work. Its plan is patterned on that of the Illinois Central. The activities include contact with the employees through the magazine and through bulletin board announcements under the name of "talking points"; with the public through advertising; with the press by friendly contact. A great deal is done by means of personal contact with the shippers. The advertising deals with leading railway matters of interest to the public and the method followed is to have the advertising appear on the first day of the month in the case of all daily papers in the road's territory and in the first issue of the month for the weekly publications. The Central of Georgia has thus been able to tell the public its story forcefully and well and we understand that the results have been most favorable.

IOWA WITHDRAWS HIGH TAX RAIL VALUATION.—The state executive council of Iowa has announced that the \$100,000,000 railroad tax case, involving all of the railroads operating in that state will be compromised out of court. Early last fall the railroads, believing that they were being taxed at from 79 to 84 per cent in excess of their actual value, brought injunction suits against the state executive council and 99 county auditors. Under the terms of the present agreement the state will rescind the valuation it placed upon the railroad properties and return to the taxation valuations used for the collection of the 1920 taxes. This agreement is \$27,643,470 above that which was allowed by Federal Judge M. J. Wade who sustained the carriers injunctions restraining the state from taxing under its valuation.

Interchangeable Mileage Book Bill Passed by House

WASHINGTON, D. C.

THE HOUSE of Representatives on June 29 passed the railroad mileage book bill which had previously passed the Senate, but with numerous amendments proposed by the committee on interstate and foreign commerce, and on July 1 the Senate concurred in the House amendments. The bill as passed by the House amends the interstate commerce act to direct the Interstate Commerce Commission to require, after notice and hearing, each carrier by rail subject to the act, to issue at such offices as may be prescribed by the commission, interchangeable mileage or scrip coupon tickets at just and reasonable rates, good for passenger carriage upon the passenger trains of all carriers by rail subject to the act.

However, the commission may, in its discretion, exempt from the provisions of this act, either in whole or in part, any carrier where the particular circumstances shown to the commission shall justify such exemption to be made. Such tickets may be required to be issued in such denominations as the commission may prescribe and before making any order the commission is directed to make and publish such reasonable rules and regulations for the issuance and use of the tickets as in its judgment the public interest demands; and especially it shall prescribe whether such tickets are transferable or non-transferable and, if the latter, what identification may be required, and especially also to what baggage privileges the lawful holders of such tickets are entitled. Any carrier which through the act of any agent or employee wilfully refuses to issue or accept any such ticket demanded or presented under the lawful requirements of the act or wilfully refuses to conform to the rules and regulations lawfully made and published by the commission thereunder or any person who shall wilfully offer for carriage any such ticket contrary to the rules and regulations shall be deemed guilty of a misdemeanor and upon conviction shall be fined not to exceed \$1,000.

The Senate bill, passed some time ago, left the fixing of the rate to the commission, but provided for a ticket of not exceeding 5,000 miles nor less than 1,000 miles. The House bill inserted a provision for scrip coupon tickets which will represent amounts of money rather than miles, and also left the denomination to the commission. The House also inserted the provision for exempting particular carriers. This was to take care of such roads as now charge rates higher than the normal rate by reason of their sparsely settled territory or mountain grades. The House bill also omits the word "interstate" which was used in the Senate bill, so that any carrier subject to the interstate commerce act may be required to issue mileage books good for both state and interstate travel. This point raised some debate on the question of the constitutionality of the law. Some representatives also argued that the bill discriminated in favor of commercial travelers, but it was pointed out that though the bill had been passed largely at their request, mileage books would be available to all who may be willing to purchase a given amount of transportation at one time. In the Senate an effort had been made to provide in the law for a reduced rate, but it was decided to leave the matter of the rates to the judgment of the commission and in the House this question was not raised.

Senator Poindexter on June 30 made an unsuccessful effort to have the Senate accept the House amendments before the House adjourned to August 15, so that the bill might become law at an early date, but the bill was taken up again on the following day and, after some discussion of the constitutionality of omitting the restriction to interstate traffic, the Senate concurred in the House amendments.



Clearing Away the Wreckage (P. & A. Photo)

Disastrous Derailment at Winslow Junction, N. J.

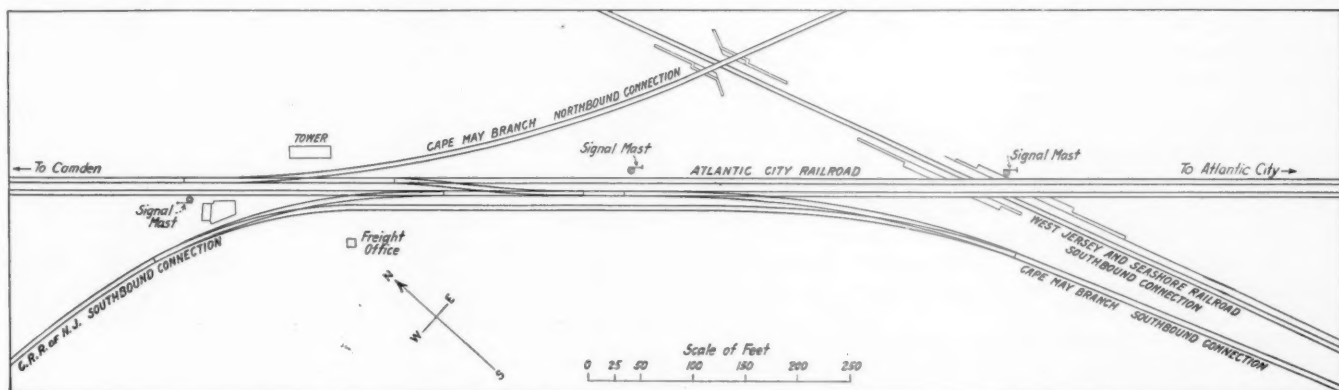
Reading's Atlantic City Express Wrecked at Seventy Miles
an Hour by Entering Turnout Too Fast

A DERAILMENT OF a fast passenger train of the Atlantic City Railroad of the Philadelphia & Reading carrying 90 passengers at Winslow Junction, N. J., at about 11:20 p. m. (Eastern Time) on July 2, resulted in the death of seven persons and the serious injury of 32 more. Train No. 33 running from Camden, N. J., to Atlantic City, a distance of 55.5 miles in a scheduled time of 1 hr. 5 min. with three stops, was about five minutes late and when running at about 70 to 75 miles an hour entered a diverging track, the switch being set for a branch in error, and was derailed with disastrous results. In the belief that a train of empty passenger coaches which passed a short time before was No. 33, the towerman had set the switch for the Cape May branch, expecting a freight train which follows No. 33 and which was at that time occupying a siding above the junction. Rain was falling at the time and the engineer

of No. 33 evidently missed the distant signal. Train No. 33 consisted of one Pullman car, a combination baggage and day coach and four passenger coaches, all of which were, according to the statement of the railroad, of steel. The locomotive was a "camel-back" of the Atlantic type.

Winslow Junction is located 24.5 miles from Camden and is the point of divergence of the Cape May branch to the more southern Jersey seashore resorts. The Pennsylvania Railroad (West Jersey & Seashore) also operates over this branch reaching it through a connection mentioned later. From Camden to Atlantic City, the Reading's line is double track, rock ballasted, laid with 100-lb. rail, has but slight grades and maximum curvature of one degree. It has a complete installation of automatic block signals—enclosed disks.

The turnout for the Cape May branch is the Reading's



Track Layout at Winslow Junction

standard No. 15 turnout, the curve being extended for about 200 ft. beyond the frog after which the track is tangent for about 1,000 ft. to a point where the Pennsylvania connection joins it. The West Jersey & Seashore parallels the Reading in this section on the east or left side, the connection mentioned leaving the main line a little north of the tower at Winslow Junction. It is carried under the Reading and for the distance necessary to reach the grade of the Cape May branch, follows along the toe of the embankment of that branch. At the undercrossing there is a difference in elevation of about 25 ft. This provides for southbound movements of the two roads over the Cape May branch without interference from grade crossings. A like arrangement farther to the south provides similarly for the northbound movements. All railroad crossings in the vicinity of Winslow Junction are at separate grades.

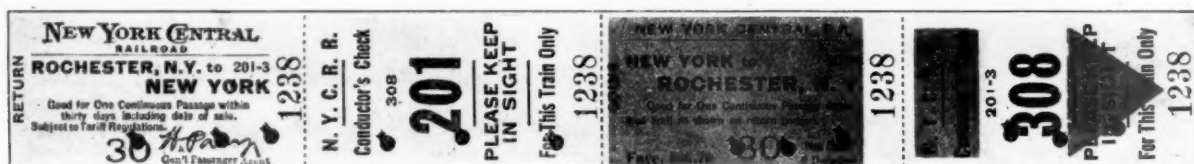
Practically all movements through Winslow Junction are through movements of passenger trains and fast freight, the passenger trains being chiefly fast expresses with a total number of approximately 50 trains daily each way. This includes traffic to and from Atlantic City and to and from the Cape May branch. Little or no switching as the term is commonly used, is done at the junction. The movements

Representatives of the Interstate Commerce Commission, of the New Jersey State Board of Public Utilities Commission and of the Camden county authorities were present, but no report of the findings has been made public as yet.

Tickets With Hat Checks Attached

THE NEW YORK CENTRAL has adopted a new style of local card ticket, to be used on all divisions of the railroad, one of which, a round trip ticket from New York to Rochester, is shown in the illustration. The distinctive features are the provision of a conductor's check attached to the ticket, and the use of colors to distinguish one division of the road from another. The engraving is reduced nearly one-third, the actual length of the ticket shown being $9\frac{1}{8}$ in. and the width about $1\frac{1}{8}$ in.

The color of the going ticket, brown, indicates that the destination is on the Syracuse division. The return portion is uncolored, that being the standard for the Hudson-Electric division, on which New York is situated. The number, "308," represents the destination, Rochester; and "201" represents the destination of the return portion. On a ticket



are controlled by a mechanically operated interlocking plant located about 300 ft. north of the Cape May turnout. The home signal is about 420 ft. and the distant signal about 3,200 ft. back of the turnout. The main track is tangent through this section for about five miles.

The tower was in charge of John F. De Walt, an experienced operator, said to be 60 years old, who entered the service of the Reading in November, 1898, and has been employed continuously since then at Winslow Junction.

According to the information at hand at this writing, De Walt mistook the train of empty coaches for No. 33. Expecting No. 491, the fast freight, to follow immediately, he set the switch for a movement to the branch, having, of course, first set the distant signal against main line movements. The engineman, Walter Westcott, was among those killed in the wreck. The towerman discovered his error only when No. 33 passed him. The locomotive was derailed at or slightly beyond the point of the frog, plunged down the embankment and was piled up on the West Jersey & Seashore track. It turned over on its side, the cab was stripped off and the engine as a whole was badly smashed up. The Pullman which was next to the engine turned completely over and came to rest, bottom side up and seriously wrecked, on top of the locomotive. The remaining cars with the exception of the last, the combination car, were piled one after another upon the forward part of the wreck. The derailment was so close to the undercrossing that some of the cars rested against the outer end of one of the abutments. The engineman, the fireman, a porter and three passengers were killed, and the conductor died later from the injuries received. Thirty-two passengers were injured seriously and sent to hospitals while numerous others were injured to varying degrees but were able to return to their homes. A steady rain was falling and to add to the unfortunate situation, the derailed cars broke down a pole supporting the lighting circuits of the town of Winslow and the vicinity. Rescue work was carried on under extreme difficulty owing to the lack of sufficient artificial light. No trouble, on the other hand, was experienced from fire.

The official investigation was begun on July 5, at Camden.

sold at the Grand Central terminal, New York, there would be a fifth coupon, or stub, which is detached by the ticket seller for use in making up his record of sales.

On through trains the conductor is able to distinguish the division to which a passenger is destined by the color of the hat check, the colors adopted being as follows: Hudson-Electric division, white; River division, pink; Mohawk division, blue; Syracuse division, brown; Erie division, purple; Cleveland division, red; Toledo division, green; Western division, gray. On minor divisions the tickets are white with a large colored letter to indicate the division; for example, the Harlem division ticket bears a red letter "H"; Adirondack division, "A D" in red. West of Buffalo minor divisions have blue letters.



Photo by International

When a Train of Perishable Freight Was Derailed Near Absecon, N. J., on the Pennsylvania

General News Department

To Insure Prompt Delivery of watermelons and other perishable freights at New York city the Pennsylvania Railroad, last week, was obliged to build about 1½ miles of wagon road, to enable consignees to reach the delivery tracks on Newark Meadows, five miles from New York, the destruction of a draw bridge by a steamer on June 22 having made the regular highway impassable. Heavy rains continued throughout the week, and the cost of the road building was about \$15,000.

Passengers killed in collisions between railroad trains and street cars at crossings in the State of Pennsylvania, in a period of eight years and nine months, numbered only five. This fact is published as showing the value of the rule, prescribed by the Public Service Commission of the State, requiring that conductors of street cars shall go ahead of the car at crossings and give a hand signal to the motorman when it is safe to pass over the tracks. The number of crossings used by street cars in the State is 611, of which number 310 are on main lines.

"The Pennsylvania News"

On July 1 the Northwestern Region of the Pennsylvania issued the first number of its "Pennsylvania News." It is an eight-page tabloid size newspaper, four columns to the page. It will be published every two weeks and distributed to each of the 18,500 employees of that Region.

Ketchum Chosen Engineering

Head of Illinois University

Prof. M. S. Ketchum, author of numerous works on engineering and member of the American Railway Engineering Association, has resigned his position as head of the department of civil engineering at the University of Pennsylvania to become dean of the college of engineering at the University of Illinois.

Floods on the Rio Grande

The recent floods on the Rio Grande washed out approximately 1,000 ft. of the Southern Pacific trestle between Del Rio and Sanderson, Tex., and three 230-ft. spans and one 120-ft. span of the International Bridge at Eagle Pass. Work of constructing a temporary trestle to restore traffic and to serve as falsework for the erection of a new steel bridge is under way. A new steel structure, designed for Cooper's E-50 loading will be erected for permanent use, and the grade line will be raised 5 ft. All of the work will be done by the Southern Pacific, the Mexican Lines sharing in the cost to the extent of 50 per cent.

To Investigate Automobile Accidents

The National Bureau of Casualty and Surety Underwriters is going to conduct an automobile accident prevention campaign. This bureau is the rate-making organization for automobile insurance against accidents, its members being 23 of the leading stock casualty insurance companies. During 1921 there were 12,500 deaths—one every 42 minutes night and day—and over 300,000 other injuries from automobiles in the United States; and the number of automobile accidents is increasing. The insurance companies are alarmed at the tendencies. This is the first organized effort on the part of insurance companies to deal with the automobile accident prevention problem.

The Bureau will make studies looking toward better control of traffic conditions, development of safety education in public schools and among drivers and stimulation of an intelligent treatment of the matter by local communities. Part of the money that has been appropriated will be expended through the National Safety Council. The secretary of the National Bureau is G. F. Michelbacher, 120 West 42d street, New York.

Black Tom Suits Settled

The suits of the governments of France and of Great Britain and the Aetna Explosive Company against the Lehigh Valley Railroad for losses caused by the great explosion at Black Tom, New York harbor, in July, 1916,—which suits were combined and tried together—and which were appealed to the Supreme Court of the State of New Jersey and finally to the Court of Errors and Appeals, have finally been decided by the highest court.

This litigation was begun in June, 1920. The verdict was for the defendant railroad company as to the claims of the British Government and that of Aetna Explosive Company, amounting in the aggregate to about \$1,430,000; and the French Government won as regards an amount of \$510,000, but the French claims to the amount of about \$122,000 were allowed. The railroad company made its appeal as against this last item, but without success.

Accident Record to April 1, 1922

The Interstate Commerce Commission has issued an abstract of its quarterly record of railroad accidents for the months of January, February and March, 1922. Most of the totals vary but slightly from those of the same quarter in the preceding year. There is, however, a large decrease in the number of passengers killed—from 75 to 23—which is no doubt explainable largely by the fact that the disastrous collision at Porter, Ind., occurred in February, 1921. In the quarter now reported the total number of persons reported killed in train accidents and train service accidents was 1,154 and of injured 9,870. In train accidents 7 passengers, 42 employees and 11 other persons were killed and 311 passengers, 342 employees and 66 other persons were injured. In non-train accidents 83 persons were killed and 17,526 injured.

The Strike Situation on Western Roads

As indicating the effect of the walkout in Western territory the following reports of the situation on representative Western carriers are of interest:

The Chicago & North Western reported between 7,000 and 8,000 men out.

The Illinois Central reported approximately 60 per cent of its shop forces still at work.

Of a normal 15,000 shop employees the Santa Fe reported 3,500 still at work.

The Burlington reports that 1,400 men of a normal force of 15,000 are still at work.

On the Rock Island 8,000 men left their places.

The Southern Pacific has reported that less than 50 per cent of their shop forces have answered the strike call. Seventy-five per cent of the shop men on the Union Pacific are out, according to officers of that road.

Reports of the intimidation of shopmen remaining at work or new men hired to take the places of the strikers are beginning to be frequent. For instance at Slater, Mo., 18 new men were driven from the Chicago & Alton shops and at Bloomington, Ill., 200 strikers surrounded a truck laden with lumber with which it was intended to build a shelter for workmen. Similar occurrences have been reported at many points but only in one or two cases has it been necessary to call upon the state for protection. At Bloomington it is reported that the sheriff has called upon the governor for troops.

M. & N. A. Bridges Damaged

The Missouri & North Arkansas bridge near Freeman, Ark., was damaged by fire on June 22, this being the third to be destroyed or seriously damaged by fire in five days. On June 18, a bridge near Fairview, Mo., was burned and on the following day one near North Lexa, Ark. Two men are awaiting preliminary hearings on arson charges for burning the bridge in

Missouri, but, although incendiarism is suspected in the case of the North Lexa and Freeman bridges, no arrests have been made at the time of this writing. Residents of Harrison, Ark., propose to offer a reward for the arrest and conviction of anyone guilty of setting fire to a bridge on this road. It is believed that the "bridge-burning campaign" is in reprisal of a meeting held at Wheaton, Mo., the week previous at which resolutions were adopted denouncing the strikers. Residents of Wheaton expressed their gratitude for the opening of the road 15 days sooner than had been anticipated and declared that they would tolerate no interference with the operation of the road. More than 100 cars of strawberries were shipped from Wheaton in May, and thousands of dollars was thereby saved to the growers. Regular passenger service was resumed on June 18, large crowds greeting the trains at each station and cheering the non-union crews in charge of them.

Shippers Urged to Support Railroads on Strike Issue

The National Industrial Traffic League has issued a circular to its members urging that they support the railroads in the recent wage reductions. This circular reads in part: "Even if the strike is a peaceable one, and without disturbance of any kind, it still will be highly expensive and costly to the companies. The resultant increases in expenses necessitating government loans, will be cast upon the shipping, traveling and tax-paying public." The carriers may be somewhat protected by the recent supreme court decision regarding property damage by members of labor unions; but, says the circular, "If property of shippers is destroyed in transit the carriers may resist claims on the ground that the losses were due to causes beyond their control. If they are unsuccessful and must pay judgments, they would undoubtedly have a further cause of action against the labor organizations. If the carriers successfully defend themselves, the shippers might well have causes of action against the unions, their officers and agents, who promoted the strikes." The circular concludes with an appeal to members of the League to suffer any and all inconvenience necessary to insure the award of the Labor Board being properly enforced. Any other stand by the shippers will weaken the carriers and give comfort to those who are about to defy the Board.

Disastrous Fire at Baltimore

A fire at the Locust Point terminal of the Baltimore & Ohio, Baltimore, Md., on the afternoon of July 2, caused by a stroke of lightning, damaged grain elevators and contents, and loaded freight cars, to an estimated total amount of more than \$4,000,000. The fire was not got under control for about five hours; and besides large quantities of grain there were destroyed 60 loaded cars containing tobacco. The damage was mainly to Elevators B and C, Pier 2 and a warehouse on Pier 5. Large numbers of tugs were employed to remove shipping from points of danger, and about 1,000 freight cars had to be hauled away from the yard. From a military hospital, nearby, 500 patients, soldiers, were removed to a schoolhouse as a precaution against panic.

The estimated original cost of buildings and plant is about \$2,500,000 covered to extent of insurable value. The grain destroyed was valued at about \$1,000,000 fully covered by insurance. Grain shipments will continue to be moved over the B. & O. to Baltimore and taken care of temporarily at neighboring terminals. All other traffic will be handled without serious inconvenience, at the piers not touched by the fire.

A photograph of this terminal appeared in the *Railway Age* of July 1, on page 16.

British Committee Recommends

Automatic Train Control

The committee of government and railway officers which was appointed by the British Government in 1920 to report on the subject of automatic train control, the chairman of which was Colonel J. W. Pringle, chief inspecting officer, has presented its report and it was published on June 20. It recommends the gradual adoption of automatic train control on British railways. The committee studied in detail the apparatus now in use on three roads, the Great Western, the North Eastern and the Great Central; and also examined devices which have been tried on the London & North Western, the Great Eastern and the London,

Brighton & South Coast. The committee does not approve of continuous control, and it believes non-contact devices are too costly and too delicate; and it recommends the contact type.

The conclusions of the committee are summarized as follows:

1. The Committee are of opinion, after careful examination and analysis of statistics during the past ten years, that automatic train control presents the only reliable method of preventing a large proportion of train accidents directly occasioned by failures of enginemmen to obey signals, which amount to about one-third of the total.

2. They consider, therefore, that a case for the installation of control upon British railways has been made out, and recommend its gradual adoption, in accordance with the list of requisites given.

3. They consider that the system likely to prove most suitable to prevailing conditions will be of the contact type, designed to operate in conjunction with existing methods of signalling.

4. They regard it as essential that the system of control should be uniform in character, and that all working parts should be of standard design in order to facilitate replacements and to ensure interchangeability.

5. They are of opinion that a complete system of automatic train control should include a train-stop device at selected stop signals, and train control generally at distant signals. They are satisfied from their investigations, however, that control at stop signals is of first importance, as a means for providing additional security.

6. If, therefore, owing to financial considerations the complete scheme cannot at present be entertained, the committee consider that the preliminary step should be the introduction of control at selected stop signals.

7. They recommend the immediate formation by the railway companies of a committee of experts to determine and standardize track and locomotive apparatus, having regard to differences in structural and loading gauges, and the position of conductor rails on electrified railways.

Holiday Travel

The exodus from the cities of New York and Philadelphia for the Fourth of July was this year the heaviest known, some business houses allowing a four-day vacation.

At the Grand Central Terminal, New York, on Saturday, July 1, the addition of extra sections to many trains failed to take away passengers as fast as they applied for passage and thousands of people were waiting in the station almost constantly throughout the day. The great concourse was, much of the time, densely packed, and at one time there was an estimated crowd of 10,000 people in the station. Some of the congestion was caused by the delays to outgoing trains, which delays were partly due to the strike of mechanics and inspectors in the yard where trains were made up. The management did not bring on its "strike breakers" until the inspectors actually left their jobs and this resulted in delays of an hour or two in a number of places, and these caused other delays. Departing trains had, however, mostly recovered their regularity by the middle of the afternoon.

It was estimated roughly that 150,000 passengers passed through the station in the course of the day.

The New York Central sent out that day a total of 25 extra sections of 22 passenger trains, and 20 extra cars on other trains. The total of extra sleepers sent out on Saturday was 54, of which 20 went to Montreal.

Trains on the River division of the New York Central were delayed in leaving Weehawken by a landslide near New Durham which blocked the road for two hours.

The total number of passengers passing through the Pennsylvania station, New York, on Saturday was estimated at 303,000. The two roads, the Pennsylvania and the Long Island, together, moved in and out of the station 5,066 passenger cars in 688 trains. On Tuesday, the 4th, the total number of trains was 900, made up of 6,500 cars.

From Philadelphia to New Jersey shore resorts both the Pennsylvania and the Philadelphia & Reading reported the heaviest holiday records in their history. Officers of the Reading estimated that in three days, Friday, Saturday and Sunday, they sent out 75,000 passengers.

The Pennsylvania, for the 36 hours ending at 6 o'clock on Sunday evening, estimated its movement to Atlantic City and other South Jersey resorts at 100,000 passengers.

Traffic News

"Rocky Mountains—Unlimited" is the title of an illustrated booklet just issued by the passenger department of the Chicago, Rock Island & Pacific. It contains a "human interest story" of a trip through the Colorado Rockies, written by a Chicago man who saw the Rockies for the first time on this trip.

The Northern Pacific will operate a new passenger train during July and August to be known as "The Yellowstone Special." Through sleeping cars will leave Chicago daily over the Burlington route. The train will leave St. Paul, Minn., at 10:50 p. m., and will arrive at Gardner, Mont., at 11:15 on the second morning. Also, through pullmans from Chicago have been added to the Pacific Express, this train now leaving St. Paul at 8:55 a. m. instead of 11:05 as formerly.

The Traffic Club of Cleveland, Ohio, held its annual meeting at Woodland Park, Ashtabula, Ohio, on June 26, and elected the following officers: President, H. N. Sibbald, the National Lamp Works; vice-president, F. P. Barr, Wheeling & Lake Erie; second vice-president, A. Z. Baker, Cleveland Provision Company; secretary, F. A. Gideon, the American Steel & Wire Company; treasurer, M. J. Naughton, D. L. & W. Five new members for the board of governors were also elected.

Freight Rates to Be Reduced In Canada

The board of railway commissioners for Canada on June 30 announced its decision to order a general reduction, on August 1, in freight rates on forest products, building material, brick, cement, lime and plaster, potatoes, fertilizers other than chemicals, pig iron, billets, ores, wire rods and scrap iron. The reduction in general is 7½ per cent; so that the increase which was ordered in September, 1920, will now become 12½ per cent in Western Canada and 17½ per cent in Eastern Canada. The Commissioners have no jurisdiction over the government-owned railways and the present order has nothing to do with rates on grain and flour, which were reduced by Parliament. The principle of arbitraries from the Maritime Provinces to all points west of Port Arthur has been approved, the St. John arbitraries being on the basis of 24 cents per 100 lb., first class.

It has been estimated that the 7½ cent reduction, in addition to restoration of the rates of 1918 on grain and flour, may cost the Canadian roads \$18,000,000 to \$20,000,000. Government roads will be heaviest losers so far as grain is concerned as they are more dependent on the movement of grain than is the Canadian Pacific.

Coal Production

The thirteenth week of the coal strike has been marked by a recurrence of traffic congestion in certain of the non-union fields, and as there has been no compensating increase in the fields affected by the strike, production of bituminous coal will be slightly less than in the week preceding, according to the Geological Survey. Production of anthracite is still practically zero.

Complete returns for the twelfth week (June 19-24) show a production of 5,337,000 net tons of bituminous coal and 24,000 net tons of anthracite.

The thirteenth week opened with production at a high rate, but on Tuesday, and again on Wednesday, congestion on the railroads serving Southeastern Kentucky and parts of Southern West Virginia began to curtail production and loadings fell off 1,000 cars. By Thursday, however, the congestion was lessening and 16,411 cars were loaded. The decrease in loadings is not owing to scarcity of cars but to inability to move them faster than a certain limit set by the existing yard and track facilities. The railroads concerned are making new records in volume of traffic handled. Production in the non-union fields of the Middle Appalachians has reached a maximum and further gains in output are not to be expected at this time.

Commission and Court News

Interstate Commerce Commission

The commission has suspended until October 28 the operation of schedules which propose to increase the rates on iron and steel from Ohio and Mississippi river crossings to points in the southeast.

The commission has suspended until October 28 the operation of schedules which propose to readjust the rates on lumber from the lower peninsula of Michigan to Central Freight Association territory, resulting except in a few instances, in reductions.

The commission has suspended until October 29 the operation of schedules which propose to cancel proportional commodity rates on petroleum from Mississippi river points to various points in Canada, on traffic from points in Kansas, Louisiana, Oklahoma, Texas and Wyoming, class rates to apply in lieu thereof.

The commission on June 27 gave special permission to the railroads to make the 10 per cent reduction in freight rates effective on July 1 by filing tariffs on one day's notice. The carriers had stated to the commission that it would be impossible to file all the reductions prescribed in the time which had been allowed.

The commission has suspended from July 1 and July 12 to October 29, the operation of schedules which propose to cancel the present specific commodity rates on new iron and steel rails and new iron and steel cross ties from various points in Maryland, Pennsylvania and West Virginia, to points in Canada, and apply the sixth class rates in lieu thereof.

The commission has suspended until October 29 the operation of schedules which propose reductions in the rates on various commodities, carloads, from New York, piers of the Southern Pacific Steamship Lines (Morgan Line), to points in Arizona, Mexico and New Mexico when routed by water to Galveston, and the Southern Pacific beyond, to the same basis as in effect from Chicago, all-rail.

Freight Rates on the Denver & Salt Lake

The commission has reopened the general rate case for a hearing before Commissioner Hall at Denver on July 31 on the question as to whether the Denver & Salt Lake shall be excluded from the general 10 per cent reduction in rates. This road and the receivers in charge of it have represented to the commission that they are financially unable to make the rate reduction and that because of a fire and cave-in of a tunnel on the line on March 31 the road has not since transported any freight; and it does not contemplate the resumption of freight service before August 1.

Overcharge Claims by the Thousand

The recent amendment to the Transportation Act, 1920, which provides that complaints covering overcharges above the legal tariff charge may be filed with the commission within two years and six months after the termination of federal control, is now in effect and the commission has received approximately 100,000 claims. It is continuing to receive them at the rate of about 500 a day. These claims are being examined by the commission, recorded and returned to claimants for handling with the appropriate carrier as rapidly as the work of the commission permits. In view of the large number of claims received, the commission reminds claimants that it is not possible to dispose of these claims with the commission's usual promptness.

The commission has suspended until November 2 the operation of schedules contained in a supplement to a Chicago Great Western tariff changing the transit rules applicable on grain at Missouri river cities by changing the destination territory to read "Stations in Illinois, Iowa, Minnesota, Missouri, Michigan

and Wisconsin." While this change widens the destination territory within the states named it eliminates the provision for transit at the Missouri river cities on traffic destined beyond those states.

K. C. M. & O. in Straits

Chairman McChord of the Interstate Commerce Commission has sent telegrams to the governors of Oklahoma, Texas and Kansas, inviting them to a conference with the commission at Washington on July 12 to consider what steps may be taken to keep in operation the Kansas City, Mexico & Orient, which has stated that unless financial assistance is given it, it will be obliged to suspend service. In the telegram Chairman McChord said that the situation is so serious that vigorous steps must immediately be taken if the road is to be continued in operation. He said that if the governors desire to bring representatives of their state commissions or other representatives to the conference, the commission would be glad to have them do so.

Financial Decisions to Be Printed

The commission has in the past issued in mimeograph form a limited number of copies of its decisions in so-called "Finance Cases"—applications under paragraphs 18 to 20 of Section 1, Section 20a, etc., of the Interstate Commerce Act, and Sections 204 and 209 of the Transportation Act, 1920. This method of distribution has not proved satisfactory and, in future, decisions of this character will be printed in pamphlet form as issued, and made available at the Government Printing Office, on a subscription basis at the same cost as other pamphlet decisions, i. e., at the rate of one dollar a volume. These decisions will also be issued in bound volumes at the usual price.

Volume 65 of the Interstate Commerce Commission reports, which has recently been issued, is the first volume of finance decisions, and volumes 67, 70 and 71 have also been allotted for this purpose.

The plan of issuing copies in pamphlet form will begin with volume 72. Applications for pamphlet copies of these decisions together with remittances, should be made directly to the Superintendent of Documents, Government Printing Office, Washington, D. C.

Court News

Valuation of Capital Stock for Taxation

The Illinois Supreme Court holds that the mode of finding the share of a railroad's "capital stock" to be taxed is to take the value of all property, tangible or intangible, including the franchise granted by the state, and deduct from it the value of the tangible property to avoid double taxation; and this can only be done by the State Tax Commission if the property is assessable under the General Revenue Act and not a part of the charter lines.—*Illinois Central v. Carr* (Ill.), 134 N. E. 138.

Trainman Held Not to Assume Risk of Others' Violation of Rules

The Circuit Court of Appeals, Second Circuit, holds that a freight train conductor, properly on the adjoining track to see whether a defect in the engine of his train, which was just starting, had been removed, did not assume the risk of the violation by a train on the adjoining track of a rule that the engine bell should be rung while the engine was passing a train.—*L. V. v. Mangan*, 278 Fed. 85.

Live Stock Caretaker's Authority to Change Stopping Points

An attendant furnished by a shipper of livestock, under his contract, to care for lambs on the way, had no ostensible authority to change the contract by eliminating the provision as to unloading at an intermediate point. His own statement that he was the person in charge, or his possession of the bill of lading was not sufficient identification as a person authorized by the bill of lading to change stopping points.—*Cook v. Northern Pacific (Mont.)*, 203 Pac. 512.

Foreign Railway News

French Road Seeks Loan in Switzerland

LONDON.

The French Paris-Orleans Railway Co., is negotiating with a group of Swiss banks with a view to the issue of a loan of 50,000,000 francs (about \$4,100,000 at the present rate of exchange), paying interest at 6 per cent.

Brazil Gets \$25,000,000 for Electrification

The Brazilian government has recently negotiated a loan of \$25,000,000 in the New York market the proceeds of which will be devoted to electrification work on the Central of Brazil, a government-owned carrier.

Poland's Freight Car Requirements

Colonel A. B. Barber, American technical adviser to Poland, writing in "Poland," the journal of the American Polish Chamber of Commerce, estimates that the Polish railways will need to acquire between 110,000 and 120,000 freight cars during 1922.

New Lines in South Africa

LONDON.

The Minister of Railways and Harbors of the Union of South Africa has introduced a bill providing for the construction of 21 new railway lines, mostly in agricultural districts, with a total length of 851 miles and costing £4,087,620 (or \$19,864,833 at the normal rate of exchange).

South American Railway Conference

The Second South American Railway Conference will be held in Rio de Janeiro, Brazil, during September. Chile has already appointed its delegation of six, headed by the assistant secretary of the Department of Railways, according to word received from the American embassy at Santiago.

A Central Purchasing Bureau for Polish Railways

LONDON.

A department called the "Centraine Biuro Zakupow" has been established at the Polish Ministry of Railways, which will be entrusted with the purchase for the railways in Poland of all material necessary for their operation. At the present moment orders for rolling stock and bridges, etc., will not be dealt with by this department, the activities of which will be limited to the purchase of rails, metals, lubricants, india rubber goods, asbestos, glass, and so forth. It is understood that the proposal is to extend this department gradually, and for it to undertake subsequently the purchase of all the requirements of the Ministry.

Information About Electrification in South Africa

The May issue of the South African Railways and Harbors Magazine is devoted to a full exposition of the subject of railway electrification, especially as it applies to South Africa. In addition, some valuable information is given about the railway situation in general in South Africa together with a map of the railways. This magazine is published by the publicity manager of the South African Railways at Doornfontein, Johannesburg.

Reductions in Freight Rates in Great Britain

The British railways which have been repeatedly requested by shippers to make general rate reductions have decided that this course of action is impossible at this time; but they have made important reductions in the case of certain basic commodities in England and Wales, according to the Railway Gazette (London). These reductions were effective on May 22. In the case of coal the basic percentage increase re-

mains at 75 per cent over the pre-war level but the flat rate per ton is reduced from 4d. per ton to 3d. and the maximum addition to this rate is reduced from 4s. to 3s. 6d. Iron ore, limestone and other raw materials for blast furnaces are decreased from 75 per cent over pre-war to 50 per cent. Other rather complicated reductions are made in iron and steel products and the cost of collection and delivery is reduced from 1s. 6d. per ton to 9d.

Electrification of the S. E. & C.

LONDON.

In connection with the electrification of certain suburban sections of the South Eastern & Chatham Railway, England, a meeting of the shareholders was held recently to approve the proposal. Altogether 220 miles of track extending to a distance of 16 miles out of London are to be converted for electric traction. The scheme having been approved, work is to commence immediately. At the end of May, a company known as the South Eastern & Chatham Construction & Power Company, with a nominal capital of £10,000 in shares of £10 each, was registered for the purpose of undertaking the electrification work and of erecting a generating station. The directors of this company are chosen from the directorates of the South Eastern and the London, Chatham & Dover companies, together with the managing committee's secretary and the general manager of the South Eastern & Chatham Railway.

China Notes

PEKING.

Prospects appear good, today, for a resumption of railway traffic in all directions during the coming week. Traffic has been suspended, actually or practically for three weeks, and seriously curtailed for a much longer period. During the fighting, the Tientsin-Pukow, the Peking-Hankow, and the Peking-Suiyuan lines have been cut, while for a few hours a rail was taken out of the main line between Peking and Tientsin,—this in violation of the Protocol of 1900. It is possible that traffic between Tientsin and Mukden will be impossible for a long time still. It is reported that a bridge north of the Great Wall has been destroyed, and that the Chang Tso-lin forces are, therefore, unable to retreat further than Shanhaikuan. At the same time it is known that Wu Pei-fu is urging the president to deprive Chang Tso-lin of his command,—which would have the result of giving legality to the desertion of Chang by some of his strongest commanders. This indicates that Wu Pei-fu is intent upon absolutely destroying the Manchurian war-lord's power, and leads to the belief in further hostilities on the Peking-Mukden line to the North.

The present disturbances evidence a growing appreciation on the part of the Chinese commanders of the part that railways play in warfare. Hitherto, when armed forces came on the line, their treatment of station and train forces was such that the railway employees deserted at the first opportunity, leaving the line to be operated at intermediate points by ignorant soldiery. This year stringent orders were given by commanders concerning the treatment to be accorded railway men, and as a result, the railway organization has continued to function,—under general orders from the military. Perhaps it would be fairer to say that this situation evidences growing discipline over military forces by the commanders than a change of attitude on the part of the latter.

The three war-lords of the North for two years, at least, have evidenced a keen appreciation of railway control, for Chang Tso-lin, immediately after the victory over the Anfuites, two years ago, insisted upon and secured the appointment of a personal confidant as managing director of the Peking-Mukden. Tsao Kun of Chihli already had a managing director satisfactory to him directing the Tientsin-Pukow line, and a few months ago soon after Wu Pei-fu began to collect the Peking-Hankow revenues at the stations, he appointed a managing director of that line, with jurisdiction over the section which Wu's troops occupied. The Peking appointee controlled only the 16 miles just to the south of Peking.

Indeed, many began to fear that the fading out of the authority of the Central Government had gone so far that the railways would become the property of the militarist who happened to be in control of the territory traversed, and the revenues would be collected at the stations everywhere, the same as on the Peking-Hankow by Wu Pei-fu's representatives. The result upon debts

owed to foreign creditors appeared to be very serious. Certain interest and principal payments were already in default to British interests. The British, however, were in a fortunate position. The customs and the salt revenues are paid in to British banks as collected. Railway accounts as they became due were being paid, so it is asserted, on the authority of the British managers of these two services. This put the British creditor in a much more favorable position than those of any other nationality, and if the situation continued, would give British supply firms the entire market. Naturally, other nationalities have been protesting. But the victory of Wu Pei-fu, consolidating as it does all of the territory served by the railways, once more serves to unify the railway administration.

The first fruits of Wu's victory is a mandate depriving Yeh Kung Cho of all his offices, decorations and perquisites. Yeh Kung Cho is probably the ablest minister of communications that China has had. But he has been guilty of "picking the wrong horse" and assisting with all of the means at his command in Chang Tso-lin's effort to become the dictator of North China. It is said that the vice-minister of communications is to be arrested also, but that individual has returned to Peking in the face of this threat and assumed the work of the ministry, pending a re-organization of the cabinet. It is too early to predict the probable shifts in personnel which will follow this re-organization, but the shifting will affect practically all of the important lines, so far as managing directors are concerned, as well as the important bureau chiefs in the ministry. An effort will be made to oust the Chiaotung "clique," but the more professional members can not be discharged without seriously crippling the effectiveness of the ministry, as there are no others with the same professional training and experience.

The new appointees will have anything but a bed of roses, for the financial straits of the railways and the ministry are very shallow as well as narrow. Two years ago the Anfu club "swept the bin." Their successors authorized the building of an extension to the Peking-Suiyuan line, a branch to the Peking-Mukden line and double track between Tongshan and Chinwangtao. In addition heavy orders for rolling stock and other supplies were given. Much of the rolling stock is now laying at ports being held for payment of lighterage and wharfage dues. Salaries are in arrears and the best estimates by creditors place the current obligations of the railways as \$55,000,000, whereas the yearly income of the railways,—if it could be collected—after operating expenses, fixed charges, etc., is only about \$25,000,000 cash,—supposing that no improvements are made during the current year. Ordinarily, this sum would make very easy a simple funding scheme over a short period. But the Chinese bankers, who know their Government best, do not seem inclined to trust it with more funds at the present time. The Peking-Suiyuan, which is the only unpledged piece of rail, is held sacred from mortgages of any kind. And Chinese public opinion seems to be unalterably opposed not only to any dealings with, but even to the bare recognition of the consortium.

In its opposition to the consortium, the Chinese public is caught on the horns of dilemma. It does not trust the present militaristic forces with any loan funds unless there is a very strict foreign supervision. Strict foreign supervision is interpreted to mean foreign control, and foreign control is construed to constitute an infringement on China's sovereignty. "China's sovereignty" is now a cherished infant, a delicate subject. It must not be chastised even for its own moral upbringing. In order to clarify the ideas of what is probably the greatest force for public enlightenment in China at present, F. W. Stevens, the American representative of the consortium, has been making a series of speeches to the student bodies of North China, explaining the circumstances under which America's railways were financed principally by foreign money and denying that the consortium would constitute a monopoly. Whether or no there is any significance in the circumstance, the fact is that only the American representative of the consortium is taking any steps to create an impression favorable to the consortium.

All the Japanese forces are said to have been withdrawn from the Shantung Railway. The third and last contingent was delayed in its leaving by the fact that arms for the Chinese guard could not be transported by rail on account of the internal disturbances. But, with the assistance of the Japanese authorities, arrangements were made to bring them in by sea. Apparently nothing has been done by way of organizing the valuation forces, although the transfer date is less than six months distant and the line is 260 miles long.

Equipment and Supplies

Locomotives

THE INTERNATIONAL HARVESTER COMPANY is said to have ordered two six-wheel switching locomotives from the Baldwin Locomotive Works.

THE NASHVILLE, CHATTANOOGA & ST. LOUIS, reported in the *Railway Age* of June 1 as inquiring for 5 Mountain type locomotives, has ordered 3 Mountain type locomotives from the Baldwin Locomotive Works.

THE CHICAGO & EASTERN ILLINOIS, reported in the *Railway Age* of July 1, as having placed an order for 10 Mikado type locomotives and about to place orders for the remainder of its inquiry consisting of six Pacific type locomotives, has ordered this latter equipment from the Lima Locomotive Works.

Freight Cars

THE ILLINOIS CENTRAL is receiving bids for from 500 to 1,000 gondola cars.

THE GREAT NORTHERN has ordered 300 underframes from the Minneapolis Steel & Machinery Company.

THE DETROIT EDISON COMPANY has ordered 6 gondola cars of 50 tons' capacity from the Pressed Steel Car Company.

THE VERDE COPPER COMPANY, Clarksdale, Arizona, has placed an order for 24 ore cars with the Western Steel Car & Foundry Company.

THE ALABAMA & VICKSBURG has ordered from the Kilbourne & Jacobs Manufacturing Company 25 all-steel automatic air dump cars of 40 tons' capacity.

THE WESTERN PACIFIC, reported in the *Railway Age* of June 24 as inquiring for 2,000 refrigerator cars, has ordered this equipment from the American Car & Foundry Company.

THE WESTERN PACIFIC, reported in the *Railway Age* of June 17 as inquiring for 2,000 refrigerator cars, has ordered this equipment from the American Car & Foundry Company.

THE UNITED VERDE COPPER COMPANY, reported in the *Railway Age* of May 6 as inquiring for 24 ore cars, has ordered this equipment from the Pressed Steel Car Company.

THE NORTHERN PACIFIC, reported in the *Railway Age* of July 1 as inquiring for 250 gondola cars, has ordered 250 general service gondola cars from the General American Car Company.

THE SOUTHERN PACIFIC has ordered from the Kilbourne & Jacobs Manufacturing Company 40 all-steel automatic air dump cars with improved apron attachment of 40 tons' capacity.

THE NORFOLK & WESTERN, reported in the *Railway Age* of July 1 as inquiring for 1,000 hopper cars, has divided an order for 2,000 hopper cars of 70 tons' capacity as follows: American Car & Foundry Company, 500 cars; Standard Steel Car Company, 500; and Pressed Steel Car Company, 1,000.

THE CHICAGO GREAT WESTERN, reported in the *Railway Age* of June 10 as inquiring for repairs to 527 miscellaneous type box cars, has placed orders for the repairing of 200 cars with the Pullman Company, 154 cars with the Sheffield Car & Equipment Company, Kansas City, Mo., and 173 cars with the Siems Stembel Company, St. Paul, Minn.

THE NORTHERN PACIFIC, reported in the *Railway Age* of July 1 as having placed orders for a large number of miscellaneous freight cars, has ordered in addition 250 gondola cars from the Standard Steel Car Company. This completes its large outstanding inquiry with the exception of 70 passenger refrigerator cars which the company has not decided whether it will purchase or not.

Passenger Cars

THE AURORA, ELGIN & CHICAGO is reported to be contemplating the purchase of new electric passenger cars.

THE WESTERN PACIFIC is reported to be considering the purchase of some passenger motor cars for short haul and branch line traffic.

Iron and Steel

THE WABASH is inquiring for 100 tons of tank plates.

THE MISSOURI PACIFIC is inquiring for 100 freight car axles.

THE ANN ARBOR has placed an order with the Midvale Steel & Ordnance Co. for 1,800 tons of steel rail.

THE MISSOURI PACIFIC has ordered three steel girder spans weighing 127 tons from the American Bridge Co.

THE ILLINOIS CENTRAL has placed an order with the United States Steel Corporation for 20,000 tons of rails.

THE LONG ISLAND will receive bids until 12 o'clock noon July 14 for 300 gross tons open hearth steel 100 lb. rails.

THE CANADIAN PACIFIC has placed an order for 48,000 tons of steel rail with the Algoma Steel Corporation, Sault Ste. Marie, Ont.

THE PITTSBURGH & LAKE ERIE will receive bids until 12 o'clock noon July 17 at Pittsburgh, Pa., for approximately 1,625 net tons of fabricated steel work.

Machinery and Tools

THE LONG ISLAND is inquiring for 2 axle lathes, a wheel press and some other machines.

THE BOSTON & ALBANY is inquiring for a 90-inch wheel lathe, also for a box facing and boring machine.

THE WAR DEPARTMENT is offering for sale a large list of commodities, including machine tools, shop equipment and supplies.

THE UNION PACIFIC has prepared a machine inquiry list consisting of 73 items which are as follows: 22 lathes of various types, 15 grinders of various types, 4 boring bars, 4 drills, 3 boring mills, 2 drill presses, 2 shapers, 2 forcing presses, 2 pneumatic flanging machines, 1 boring and turning machine, 1 disk sander, 1 flange clamp, 1 punch and shear, 1 riveting machine, 1 hammer, 1 boring machine, 1 centering machine, 1 slip roll forming machine, 1 pipe folder, 1 pneumatic flanging clamp, 1 pipe cutting and threading machine and 1 cutting off machine.

THE CHICAGO, BURLINGTON & QUINCY has issued a new machinery inquiry for its Denver shops covering 117 items which include 31 lathes of various types, 19 grinders of various types, 12 drills, 6 hammers, 5 presses, 5 crank shapers, 5 boring mills, 4 grindstones, 3 planers, 2 slotters, 2 turret screw machines, 2 bar iron shears, 2 combination punch and shears, 2 milling machines, 2 head bolt cutters, 2 pipe threading machines, 1 single end punch, 1 bolt centering machine, 1 bending roll, 1 pneumatic flanging machine, 1 pneumatic flanging clamp, 1 sheet metal cutter, 1 drill press, 1 forging machine, 1 staybolt and crownstay machine, 1 pipe bending machine and 1 horizontal boring machine.

Signaling

THE CITY OF PHILADELPHIA has ordered from the Union Switch & Signal Company apparatus for the complete installation of an automatic block signaling and interlocking system on the Frankford Elevated Railway, six miles in length, double track, from Philadelphia Rapid Transit line at Arch street, north to Bridge street. Electro-pneumatic interlockings, utilizing alternating current throughout, will be installed at Arch street, Girard avenue, Dauphin street, Torresdale avenue and Bridge street. There will be 50 automatic block sections with electro-pneumatic automatic train stops with three-indication color-light signals. The contractor will do the whole of the work and will use alternating current for control and operation of all the signals and interlocking.

Supply Trade News

J. D. Rogers, who has been representing the **Baldwin Locomotive Works** in South Africa, has been appointed manager of the company's office at Calcutta, India.

N. E. Gage, formerly connected with the **Standard Tool Company**, Cleveland, Ohio, has recently been appointed sales manager of the **National Tool Company** of that city.

Fay, Spofford & Thorndike, consulting engineers, recently removed their offices from 15 Beacon street to the Massachusetts Trust building, 200 Devonshire street, Boston, Mass.

The Kennedy Car Liner & Bag Company, Shelbyville, Ind., has received orders during the past month for Kennedy freight car liners aggregating about 50,000. These orders were placed by various grain carrying roads throughout the country.

The Wilson Welder & Metals Company, Inc., 132 King street, New York City, recently appointed the **King-Knight Company**, Underwood Building, San Francisco, Cal., exclusive representatives in central and northern California for Wilson plastic-arc welding machines and Wilson Color-Tipt metals.

C. C. Clark has been appointed assistant general sales manager of the **Pressed Steel Car Company** and the **Western Steel Car & Foundry Company**, in charge of sales matters in the central district, with headquarters in the Farmers Bank building, Pittsburgh, Pa., taking the place of K. C. Gardner, resigned.

A. R. Kipp, mechanical superintendent of the Minneapolis, St. Paul & Sault Ste. Marie with headquarters at Minneapolis, resigned effective June 30 to form a partnership with **F. L. Battey**, consulting engineer specializing in railroad shop and industrial plant design and construction shop operating problems, with offices in the Union Fuel Building 123 West Madison street, Chicago.

Anson W. Burchard, vice-chairman of the board of directors of the General Electric Company, Schenectady, N. Y., has been elected president and chairman of the board of the **International General Electric Company**, succeeding Gerard Swope, its former president, who was recently chosen president of the General Electric Company. He also succeeds Charles Neave, former chairman of the International Company, who has resigned.

W. H. White will in the future be in charge of the New York City business of the **Mahr Manufacturing Company**, Minneapolis, Minn., makers of Mahrvel oil burning equipment. Mr. White's headquarters will be at 56 Murray street, New York City. He has devoted all his time to mechanical work both in the shops and on the road, having served in the steel and iron business for the past 10 years. Until recently he was with B. M. Jones & Company, Inc., New York City.

Charles H. Bluske has been appointed district sales manager of the **Economy Fuse & Manufacturing Company**, Chicago, at its Los Angeles, Cal., office, 1304 Maltman avenue, succeeding George L. Davis. Mr. Bluske was formerly connected with the Pacific States Electric Company, Los Angeles. The Pittsburgh, Pa., sales office of the Economy Fuse & Manufacturing Company has been moved from 2223 Farmers Bank building to 1006 Peoples Bank building at Fourth avenue and Wood street.

Dwight P. Robinson & Company, engineers and constructors, New York City, have contracted with the Metropolitan Life Insurance Company for life insurance policies, to be given, without expense, to all members of the organization reporting to the central office, under a group insurance plan. All employees included in the plan are insured regardless of their

age and condition of health and no medical or physical examination is required. The amount of insurance is increased \$100 for each additional year of continuous employment, and provision for total and permanent disability before the age of sixty is also included.

O. R. Hildebrant will in future represent the railway sales department of the **U. S. Light & Heat Corporation**, Niagara Falls, N. Y., in the southeastern territory with headquarters at Norfolk, Va. Mr. Hildebrant began work in 1905 with the Pennsylvania at Jersey City, N. J. In 1909 he went to the Safety Car Heating & Lighting Company and later was with the Edison Storage Battery Company as chief inspector and sales engineer until February, 1918. He then entered the employ of the U. S. Light & Heat Corporation, as representative in the southeastern district, which position he held until November, 1920, when he again entered railroad work on the Florida East Coast. He now returns to the service of the U. S. Light & Heat Corporation as above noted.

American Car and Foundry Company

The annual report of the American Car & Foundry Company for the year ended April 30, 1922, showed the operation of drastic economies during the period of reduced railroad earnings which resulted in final net profits equivalent to \$14.94 a share on the \$30,000,000 of common stock, as compared with \$21.50 in the preceding year. The company reduced its notes and accounts receivable from \$20,002,355 to \$8,399,478. Part of the proceeds of the liquidation was invested in United States war bonds and Treasury certificates, this account rising \$13,518,974 to \$18,527,824. Net earnings of the company after taxes declined \$4,161,095, as compared with 1921; net profits \$1,967,536, and the surplus after dividends \$1,967,530. Cash decreased \$4,663,080, accounts payable \$13,239,510 and inventory \$4,929,235.

President William H. Woodin, in his remarks to the shareholders, commented on the present unfortunate situation of the carriers, in which he stated that they are under-equipped to handle normal traffic and are in great need of rehabilitation. The present situation, he added, is the result of a lack of adjustment of rates and wages as a result of incomplete co-ordination between two different government agencies. "The development of a fairer public attitude towards the problems of the railroads, however, will bring about a realization of the necessity of providing and maintaining equipment sufficient for all needs," he concluded. Details of the annual report for the year ended April 30 are as follows:

INCOME ACCOUNT		1922
Net earnings after Federal taxes.....		\$9,051,721
Renewals, replacements, etc.....		2,468,401
Net profits.....		6,583,320
Preferred dividend.....		2,100,000
Common dividend.....		3,600,000
Surplus for year.....		883,320
Previous surplus.....		35,276,568
Total surplus, April 30.....		36,159,888
ASSETS		
Property and plant account.....		72,301,696
Materials.....		9,080,826
Accounts and notes receivable.....		8,399,478
U. S. securities.....		18,527,824
Stock and bonds.....		5,764,050
Cash.....		6,811,358
Total assets.....		\$120,885,232
LIABILITIES		
Preferred stock.....		\$30,000,000
Common stock.....		30,000,000
Accounts payable.....		8,455,083
Federal taxes.....		1,119,785
Dividends declared.....		1,425,000
Reserve accounts—		
For insurance.....		1,500,000
For improvements, etc.....		1,196,778
For dividends on common stock.....		10,800,000
For employees.....		228,698
Surplus account.....		36,159,888
Total liabilities.....		\$120,885,232

THE NEBRASKA STATE BOARD OF EQUALIZATION has fixed the taxable valuations of all railroads in Nebraska, except the Chicago & North Western, at \$277,254,122, an increase of \$9,788,540 over last year. The valuation of the North Western is withheld pending developments in a federal court injunction suit.

Railway Construction

ATCHISON, TOPEKA & SANTA FE.—This company, in conjunction with the city of Kansas City, Kan., is preparing plans for the south approach and main section of the Goddard avenue viaduct. The construction program for the north approach has not been completed, pending negotiations with other railroads.

CHICAGO, BURLINGTON & QUINCY.—This company is calling for bids for the construction of a two-story brick addition to a freight house at Burlington, Iowa.

CHICAGO, ROCK ISLAND & PACIFIC.—This company, which was reported in the *Railway Age* of February 25 as contemplating the construction of a one-story brick passenger station at Graham, Texas, estimated to cost \$25,000, is now calling for bids on this work. This company has awarded a contract to the Gould Construction Company, Davenport, Iowa, for the construction of an 8-ft. by 9-ft. by 190-ft. reinforced concrete box at Pershing, Iowa, to replace a high trestle at that point; a 6-ft. by 6-ft. by 30-ft. reinforced concrete box near Eldon, Iowa, to replace a stone box at that point; two concrete and steel subways near Fairfield, Iowa, to replace existing structures, and a 12-ft. by 12-ft. by 25-ft. reinforced concrete box near Jamesport, Iowa, to replace a stone and steel structure at that point; this work to involve the expenditure of approximately \$60,000.

ILLINOIS CENTRAL.—This company is calling for bids for the construction of interlocking plants at Peotone, Ill., and Manteno to involve a total expenditure in excess of \$20,000.

MISSOURI PACIFIC.—This company is calling for bids for the construction of a considerable extension to its car repair shed at Sedalia, Mo.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—This company has begun and will complete by company forces improvements at Dickson, Tennessee, involving the construction of a \$16,000 passenger station, the conversion of the present station into a freight house at a new location and the installation of a new turntable. The total estimated cost of this work is \$40,000.

NATIONAL RAILWAYS OF MEXICO.—This company is undertaking extensive improvements on its Chihuahua division between Juarez and Jimenez, involving altering the existing line to cost in excess of \$200,000.

NEW YORK CENTRAL.—On July 6 G. A. Harwood, assistant to the president; R. E. Dougherty, designing engineer; F. B. Hank, assistant engineer, and Alfred Felheimer, consulting engineer, submitted a plan to the mayor and terminal commission of Buffalo, N. Y., for the construction by this company of a main passenger station at Clinton street, that city, and for a smaller station on the site of the present main station at Washington street and Exchange place. The plan also calls for necessary track changes.

PENNSYLVANIA.—This company is receiving bids for the construction of a double-track half-through girder bridge with reinforced concrete floor to carry two tracks of the Delaware division over the state highway north of State Road Station, Del. Approximate quantities are about 960 cu. yd. of foundation and channel excavation, 1,200 cu. yd. concrete masonry, etc., 2,250 sq. ft. asphalt paint for waterproofing and 5,000 cu. yd. embankment removed. Work will be in charge of J. F. Cullen, assistant engineer, Philadelphia, Pa.

PORTLAND, ASTORIA & PACIFIC.—This company has awarded a contract to A. Guthrie & Co., Portland, Ore., for laying rails and ballasting of approximately 30 miles of new line, extending from Vernonia, Ore., on the Spokane, Portland & Seattle, to the timber properties of the Central Coal & Coke Co., in the Nehalem district. The work is now in progress.

WABASH.—This company is calling for bids for the converting of its combination freight and passenger station at Kirksville, Mo., into a passenger station, and for the construction of a one-story 27-ft. by 136-ft. frame freight house at that point.

Railway Financial News

CENTRAL OF GEORGIA.—*Annual Report.*—This company's annual report for 1921 is reviewed in an article on another page of this issue entitled "Central of Georgia Perishable Traffic Big Factor." See also excerpts from annual report on adjacent pages.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—*Annual Report.*—This company's annual report for 1921 is reviewed in an article on another page of this issue entitled "Elimination of Coal Loadings Fails to Hurt Big Four." See also excerpts from annual report on adjacent pages.

DAYTON-GOOSE CREEK.—*To be Purchased.*—See New Orleans, Texas & Mexico.

ERIE.—*Equipment Trust Certificates Authorized.*—The Interstate Commerce Commission has authorized this company to assume obligation and liability in respect of \$4,500,000 of equipment trust certificates to be sold at not less than 96.94.

INTERNATIONAL & GREAT NORTHERN.—*To be Sold.*—This road, now in receivership, will be sold at public auction at noon July 28. L. McDaniel, special master appointed by Judge Hutchinson, will sell the road. An auction will be held to satisfy the claims of the bondholders, which amount to between \$18,000,000 and \$19,000,000, and will be made under the foreclosure decree signed by Judge Hutchinson on May 17, 1915. It is understood the bondholders have made plans to purchase the road unless a bidder appears who will offer enough to clear the indebtedness. They will then reorganize and terminate the present receivership.

Reorganization Plan Operative.—J. & W. Seligman & Co. and Speyer & Co., reorganization managers, announce that they have declared operative the plan and agreement of reorganization of the International & Great Northern. See article in *Railway Age* of June 10, 1922, page 1347.

INTERNATIONAL & GREAT NORTHERN.—*Annual Report.*—The annual report issued this week shows the following corporate income account for the year ended December 31, 1921:

	1921	1920
Net revenue from operations.....	\$2,012,706	\$2,129,697
Federal rental and guaranty.....		1,416,854
Hire of equipment—credit.....	1,061,430	349,916
Other corporate income.....	145,932	200,801
Gross corporate income.....	3,220,068	4,097,268
Tax accruals.....	444,043	119,831
Hire of equipment—debit.....	2,217,348	779,155
Total deductions, inc. other.....	2,894,402	989,890
Net corporate income.....	325,666	3,107,379
Interest on funded debt.....	892,005	902,043
Interest on unfunded debt.....	916,704	874,149
Deficit or surplus, carried to profit and loss.....	1,483,043	1,331,187

MARSHALL & EAST TEXAS.—*Sale of Property Ordered.*—The United States District Court for the Eastern District of Texas on July 1 instructed Bryan Snyder, receiver of this road, to sell that part of the main line extending from Marshall, Tex., to Elysian Fields, about 18 miles. The property to be sold includes buildings and appurtenances located on the right-of-way. The sale will be held at the County Court House in Marshall on August 1, 1922.

The Marshall & East Texas was placed in the hands of receivers January 25, 1917, and operation was discontinued July 31 of the same year. Under court orders certain sections of the original 92-mile line were sold separately.

MISSOURI, KANSAS & TEXAS.—*Receivership Ended.*—Judge Sanborn in St. Louis on June 30 signed a decree authorizing the sale of this road for not less than \$28,000,000. Byron F. Babbitt of St. Louis and Joseph F. Dobbins of Oklahoma City have been appointed special masters to conduct the sale at public auction. The sale will be held at Colbert, Okla., in about six weeks.

NEW ORLEANS, TEXAS & MEXICO.—*Asks Authority to Purchase Dayton-Goose Creek Railroad.*—This company has applied to the Interstate Commerce Commission for approval of a contract entered into with the Dayton-Goose Creek Railroad Company for the purchase of the latter's property for \$1,000,000, of which \$750,000 will be paid in cash and the remainder in New

Orleans, Texas & Mexico five per cent adjustment income bonds. The Dayton-Goose Creek was built three years ago by R. S. Sterling, of Houston, Texas. It extends 25 miles between Dayton, Texas, and Baytown, a connection being made with the Southern Pacific at the former place.

NEW YORK CENTRAL.—Authorized to Issue Bonds.—The Interstate Commerce Commission has authorized an issue of \$25,000,000 of 5 per cent refunding and improvement mortgage bonds, series C to be sold at not less than 90. The proceeds are to be applied to the payment of a like amount of 10-year 7 per cent collateral trust bonds as the latter are called for redemption on September 1.

READING COMPANY.—To Offer Modified Plan.—The United States District Court at Philadelphia has ordered that the Reading Company, the Philadelphia & Reading Coal & Iron Company, and the general mortgage bondholders' committee, after a conference, formulate and submit to the court on or before October 30, a plan for a modification of the Reading dissolution decree to conform to the recent ruling of the United States Supreme Court in Justice Taft's opinion.

TOLEDO ST. LOUIS & WESTERN.—Stock Ruling.—The United States District Court at Toledo has entered an order providing that all of the expenses and compensation of the stockholders' protective committee of the Toledo, St. Louis & Western be paid by the company and that the stock of the railroad company on deposit with the Empire Trust Company, New York City, be delivered upon the return of the outstanding certificates of deposit, as follows:

"B" certificates, upon the basis of share for share, and original certificates, upon the basis of ninety shares of railroad company stock for 100 shares of original certificates, free of all charges of the committee.

UTAH TERMINAL.—Certificate Denied.—The Interstate Commerce Commission has denied this company's application for a certificate authorizing the construction and operation of a line of 3.64 miles in Carbon County, Utah, as a spur into a mining district.

WAASH.—Asks Authority to Issue Equipment Trusts.—This company has applied to the Interstate Commerce Commission for authority to issue \$4,245,000 of 5 per cent equipment trust certificates which had been conditionally sold to Kuhn, Loeb & Co. at 95½.

Treasury Payments to Railroads

Since last announcement, dated June 1, 1922, payments under Sections 204, 209, 210 and 212 of the Transportation Act, 1920, as amended, have been made by the Treasury as follows:

Section 204:	
Apalachicola Northern Railroad Co.....	\$3,763.97
Arizona & Swansea Railroad Co.....	15,296.34
Blytheville, Leachville & Arkansas Southern R. R. Co....	29,892.09
Bullfrog Goldfield Railroad Co.....	15,144.79
Jefferson & Northwestern Railway Co.....	4,983.55
Lawndale Railway & Industrial Co.....	2,730.98
Leetonia Railway Co.....	44,831.32
Millers Creek R. R. Co.....	50,237.97
Ocean Shore Railroad Co.....	63,322.30
Paris & Mt. Pleasant Railroad Co.....	1,748.47
Raquette Lake Railway Co.....	9,717.82
Silverton Northern Railroad Co.....	20,845.16
South Buffalo Railway Co.....	196,175.57
South San Francisco Belt Railway.....	29,590.87
United Verde & Pacific Railway Co.....	34,533.15
Ventura County Railway Co.....	17,456.32
Section 209:	
Apalachicola Northern Railroad Co.....	14,802.29
Chicago & Eastern Illinois Railroad Co.....	723,982.56
Chicago & North Western Railway Co.....	3,733,520.55
Colorado Springs & Cripple Creek Ry. Co., Receiver.....	170,921.69
Duluth, South Shore & Atlantic Ry. Co.....	178,459.94
El Paso & Southwestern Co.....	691,408.32
Flint River & Northeastern Railroad Co.....	1,238.91
Jefferson & Northwestern Railway.....	18,362.49
Mineral Range Railroad Co.....	123,167.95
Minneapolis, St. Paul & Sault Ste. Marie Railway.....	592,467.82
Mississippi Eastern Railway Co.....	4,494.77
New Orleans, Great Northern Railroad.....	131,055.93
Paris & Mt. Pleasant Railroad Co.....	6,105.81
Peoria & Pekin Union Railway Co.....	83,829.87
Rock Island Southern Railway Co.....	58,711.84
The San Antonio & Arkansas Pass Railway Co.....	81,354.39
Waterville Railway Co.....	938.59

Section 210:	
Boston & Maine Railroad.....	5,000,000.00
Hocking Valley Railway Co.....	612,000.00
New York, New Haven & Hartford R. R. Co.....	300,000.00
Seaboard-Bay Line Company.....	1,100,000.00

Section 212:

Louisiana Railway & Navigation Co.....	102,626.94
Paris & Mt. Pleasant Railroad Co.....	5,000.00
Texas & Pacific Railway Co., Receiver.....	500,000.00
Total	\$14,774,721.33

Total payments to June 30, 1922.

(a) Under Section 204, as amended by Section 212 for reimbursement of deficits during Federal Control:	
(1) Final payments, including partial payments previously made	\$2,397,820.99
(2) Partial payments to carriers as to which a certificate for final payment has not been received by the Treasury from the Interstate Commerce Commission..	1,456,226.51
Total payments a/c reimbursement of deficits	3,854,047.50
(b) Under Section 209, as amended by Section 212 for guaranty in respect to railway operating income for first six months after Federal Control:	
(1) Final payments, including advances and partial payments previously made.....	70,243,572.50
(2) Advances to carriers as to which a certificate for final payment has not been received by the Treasury from the Interstate Commerce Commission.....	234,053,672.00
(c) Partial payments to carriers as to which a certificate for final payment has not been received, as stated above.....	138,746,422.09
Total payments account of said guaranty	443,043,666.59
(c) Under Section 210, for loans from the revolving fund of \$300,000,000 therein provided.....	314,103,080.00
Total	\$761,000,794.09

Repayments of loans have been made to the amount of \$80,095,550.

Tentative Valuations

The Interstate Commerce Commission has issued a number of additional tentative valuations in which, as authorized by the recent amendment to the valuation law, it has omitted the report on the cost of acquisition of land in addition to its original cost or present value. The final values of the property owned and used are given as follows:

	Owned	Used
Sandersville	\$46,673	\$57,392
Ashland Coal & Iron Railway.....	1,447,448	1,445,436
New York & Pawn Grove.....	106,026	.....
Duluth, South Shore & Atlantic.....	17,961,229	17,967,191
Cement, Tolenas & Tidewater.....	112,002	.....
Craig Mountain Lumber Company's Railway.....	116,017	.....
Oregon, Pacific & Eastern.....	321,117	328,217
Manistee & Repton.....	75,000	117,500
Munising, Marquette & Southeastern.....	2,999,784	3,009,889
Carlton & Coast.....	348,603	373,603
Cincinnati, Flemingsburg & Southeastern.....	151,397	158,497

Railroad Administration Settlements

The United States Railroad Administration reports the following final settlements, and has paid out or received from the several roads the following amounts:

Boston & Maine Railroad.....	\$2,470,000.00
Philadelphia & Reading Railway Company, paid Director General	8,000,000.00
Sioux City Terminal Railway Company, paid Director General	60,000.00
Rock Island-Frisco Terminal Railway Company, paid Director General	21,800.00
Dayton & Union Railroad Company, paid Director General....	1,000.00
SHORT LINES	
Raquette Lake Railway Company.....	4,000.00
Paris & Mt. Pleasant Railroad Company, paid Director General	100,747.17

Dividends Declared

Buffalo & Susquehanna.—Common, 1¼ per cent, quarterly, payable September 30 to holders of record September 15.
 Delaware, Lackawanna & Western.—3 per cent, quarterly, payable July 20 to holders of record July 8.
 Pere Marquette.—Preferred, 1¼ per cent, quarterly; preferred, on account of accumulated dividends, 1 per cent; prior preference, 1¼ per cent, quarterly, all payable August 1 to holders of record July 15.
 Pittsburgh & West Virginia.—Preferred, 1½ per cent, quarterly, payable August 31 to holders of record August 1; preferred, 1½ per cent, quarterly, payable November 29 to holders of record November 1.

Trend of Railway Stock and Bonds Prices

	July 3	Last Week	Last Year
Average price of 20 representative railway stocks	65.91	64.91	54.43
Average price of 20 representative railway bonds	86.41	86.38	73.83

Annual Reports

Central of Georgia Railway Company — Twenty-seventh Annual Report.

Savannah, Ga., March 8, 1922.

To the Stockholders:

The Board of Directors herewith submits the following report of the operations and affairs of your company for the year ended December 31, 1921.

ACCOUNTS WITH DIRECTOR GENERAL

Final settlement with the United States Railroad Administration of accounts growing out of Federal Control (which are shown on the Balance Sheet of December 31, 1921, as due to and from your Company) was effected January 3, 1922.

GOVERNMENT GUARANTY

The amount accrued to your company by the Government under the six months' guaranty given by the Transportation Act, 1920, has not been ascertained and certified by the Interstate Commerce Commission, but final claim has been filed with the Commission under its Order, dated December 15, 1921.

INCOME

A summary of the income for the year ended December 31, 1921, as compared with the previous year is stated below.

	1921.	1920.	+Increase —Decrease
Average Miles Operated during year	1,913.63	1,913.63	.....
Operating Revenues	\$22,057,498.58	\$20,676,551.05	+\$1,380,947.53
United States Government—Guaranty Period Claim	.....	3,111,965.51	— 3,111,965.51
Rental from United States Railroad Administration	.....	732,892.77	— 732,892.77
Total Operating Revenues	\$22,057,498.58	\$24,521,409.33	—\$2,463,910.75
Operating Expenses	20,020,842.57	21,102,368.50	— 1,081,525.93
Excess of Revenues over Expenses	\$2,036,656.01	\$3,419,040.83	—\$1,382,384.82
Taxes	899,875.21	795,151.18	+ 104,724.03
Uncollectible Railway Revenues	46,588.39	5,584.69	+ 41,003.70
Operating Income	\$1,090,192.41	\$2,618,304.96	—\$1,528,112.55
Equipment Rents—Net credit	235,176.69	167,337.00	+ 67,839.69
Joint Facility Rents—Net debit	104,713.76	83,581.37	+ 21,132.39
Net Operating Income	\$1,220,655.34	\$2,702,060.59	—\$1,481,405.25
Non-operating Income	918,424.05	1,777,309.27	— 858,885.22
Gross Income	\$2,139,079.39	\$4,479,369.86	—\$2,340,290.47
Deduction from Gross Income	3,118,893.01	2,962,662.41	+ 156,230.60
Net Income	*\$979,813.62	\$1,516,707.45	—\$2,496,521.07

*Asterisk denotes deficit.

†Includes corporate operating expenses for the months of January and February, 1920, amounting to \$12,592.52, not assumed by United States Railroad Administration.

During the current year your railroad was operated under corporate management. In the preceding year the property was under Federal control the first two months; under corporate management with a Federal guaranty the following six months; and under corporate management without guaranty the remaining four months. As a consequence, the only items which are comparable are "Non-operating Income" and "Deduction from Gross Income" as during the first two months of 1920, when the properties were under Federal control all "Net Railway Operating Income" items were borne by the Government and your company received a rental which, in the Income Accounts, is shown opposite "Rental from United States Railroad Administration," and, therefore, the operating accounts comprising "Net Railway Operating Income" include the results for ten months only, while the figures for 1921 are the totals for the year.

To afford a proper comparison of operating results for the two years there has been prepared and will be found below a table headed "Transportation Operations," which for 1920 combines the Federal operations for the first two months of the year and corporate operations for the balance of the year.

NON-OPERATING INCOME

"Non-operating Income" this year amounted to \$918,424.05 as against \$1,777,309.27 last year, a decrease of \$858,885.22. The decrease was due to a reduction of \$799,640.00 in dividends received from Ocean Steamship Company of Savannah; a reduction of \$231,800.00 in dividends received from Atlantic Compress Company; and a net increase of \$172,554.78 in other items comprising "Non-operating Income" of which \$75,000.00 was due to an adjustment in December, 1920, of interest on open accounts with the United States Railroad Administration.

DEDUCTIONS FROM GROSS INCOME

"Deductions from Gross Income" amounted to \$3,118,893.01, an increase of \$156,230.60 over the previous year. This increase was due principally to interest of \$38,377.09 on Equipment Trust "M" certificates issued in February, 1921, and to interest of \$127,205.47 on advances from affiliated companies.

TRANSPORTATION OPERATIONS

The results of transportation operations this year, compared with last year, referred to above are as follows:

	1921.	1920.	+Increase —Decrease
Freight	\$14,565,643.79	\$15,485,717.56	—\$920,073.77
Passenger	5,483,676.31	6,794,338.45	— 1,310,662.14
Mail	454,847.87	917,380.09	— 462,532.22
Express	459,989.01	591,324.55	— 131,335.54
Other passenger train	228,379.16	291,956.17	— 63,577.01
Other transportation	260,780.00	306,370.25	— 45,590.25
Incidental and joint facility	604,182.44	695,201.02	— 91,018.58
Total railway operating revenues	\$22,057,498.58	\$25,082,288.09	—\$3,024,789.51
Railway Operating Expenses:			
Maintenance of way and structures	\$3,449,358.35	\$4,942,898.33	—\$1,493,539.98
Maintenance of equipment	4,711,701.60	6,163,735.93	— 1,452,034.33

Traffic	778,475.70	673,246.65	+ 105,229.05
Transportation	10,052,517.47	12,908,739.14	— 2,856,221.67
Miscellaneous operations	87,677.55	64,426.70	+ 23,250.85
General	950,019.02	990,233.74	— 40,214.72
Transportation for investment—Cr.	8,907.12	9,913.02	— 1,005.90
Total railway operating expenses	\$20,020,842.57	\$25,733,367.47	—\$5,712,524.90
Net revenue from railway operations	\$2,036,656.01	*\$651,079.38	+\$2,687,735.39
Railway tax accruals	\$899,875.21	\$925,198.85	— \$25,323.64
Uncollectible railway revenues	46,588.39	10,735.53	+ 35,852.86
Railway operating income	\$1,090,192.41	*\$1,587,013.76	—\$2,677,206.17
Equipment rents—Net credit	235,176.69	148,611.13	+ 86,565.56
Joint facility rents—Net debit	104,713.76	114,788.83	— 10,075.07
Net railway operating income	\$1,220,655.34	*\$1,553,191.46	—\$2,773,846.80

* Asterisk indicates deficit.

RAILWAY OPERATING REVENUES

"Railway Operating Revenues," amounted to \$22,057,498.58 this year as compared with \$25,082,288.09 last year, a decrease of \$3,024,789.51, or 12.06%.

The decrease of \$920,073.77 or 5.94% in "Freight Revenue" is due to a decline in the volume of traffic handled as a result of prevailing business depression. The tons of revenue freight carried one mile this year were 1,112,683,441, a decrease of 170,615,035 ton miles, or 13.30%, as compared with previous year.

The decrease of \$1,310,662.14, or 19.29% in "Passenger Revenue" is due to the substantial falling off in passenger travel which was affected by the general depression in business existent throughout the year. The revenue passengers carried one mile decreased 65,982,673, or 27.37%. The decline in the volume of traffic was offset in part by increased rates which were in effect during the year as against only four months of the previous year. The average revenue per passenger per mile being 3.13%, an increase compared with last year of 0.31c., or 10.99%.

The decrease of \$462,532.22, or 50.42% in "Mail Revenue" is due principally to the inclusion in "Mail Revenue" for 1920, of \$329,638.00 for back mail pay applicable to the years 1918-1919, and to an adjustment this year of \$40,176.27 covering back mail pay for the years 1916-1917.

The decrease of \$131,335.54, or 22.21% in "Express Revenue" is due in part to a smaller volume of express traffic handled, but more largely to the inadequate proportion of the total express revenue received from the Express Company for the transportation of express.

The decrease in "Other Passenger Train Revenue," "Other Transportation Revenue" and "Incidental and Joint Facility Revenue" aggregating \$200,185.84, or 15.48% is due to the same causes as the decreases in "Freight Revenue" and "Passenger Revenue."

RAILWAY OPERATING EXPENSES

"Railway Operating Expenses" amounted to \$20,020,842.57 this year as compared with \$25,733,367.47 last year, a decrease of \$5,712,524.90, or 22.20%.

The decrease of \$1,493,539.98, or 30.22% in "Maintenance of Way and Structures Expenses" is due to the decreased expenditures for repairs; decrease in force and wages; decrease in number of overtime hours worked; and a decrease in the cost of material and supplies used.

The decrease of \$1,452,034.33, or 23.50% in "Maintenance of Equipment Expenses" is due to decreased expenditures for repairs to equipment; decrease in force and wages; changes in working conditions; and a decrease in cost of materials and supplies. Charges to "Maintenance of Equipment Expenses" for depreciation were \$617,951.55, an increase of \$11,883.13, or 1.96%. The increase is due to an increase of depreciable equipment. The average miles per serviceable locomotive were 31,167, a decrease of 4,562 miles, or 12.77%. The average age of locomotives was 18.2 years as compared with 17.3 years for the preceding year.

The increase of \$105,229.05, or 15.63% in "Traffic Expenses" is due in part to the reorganization of the Traffic Department and re-establishment of outside agencies after the termination of Federal control and partly to increased printing expenses on account of the numerous changes in rates and the necessary issue of voluminous tariffs in connection therewith.

The decrease of \$2,856,221.67, or 22.13% in "Transportation Expenses" is due to a reduction in train service on account of the decline in the volume of business transported this year as compared with the previous year; reduction of wages; and greater efficiency in the operation of trains. Train loading increased 2.4% over the previous year. Fuel costs decreased \$648,486.00. This saving was partly due to a decrease in the price of fuel, but principally to the fuel campaign carried on throughout the year which effected a saving of 91,265 tons of coal by better performance. There were also substantial decreases in the payments for casualty items this year, the result of special campaigns for the prevention of causes originating such claims.

The decrease of \$40,214.72, or 4.06% in "General Expenses" is due principally to reduction in general office forces and wages.

The increase of \$23,250.85, or 36.09% in "Miscellaneous Operations" is due to the decrease in passenger business.

RAILWAY TAX ACCRUALS

"Railway Tax Accruals" amounted to \$899,875.21 this year as compared with \$925,198.85 (the latter figure including taxes assumed by the United States Railroad Administration for the first two months of 1920) last year; a decrease of \$25,323.64, or 2.74%, due to substantial decrease in Federal income tax on account of a reduction in taxable income.

FINANCIAL

Capital Stock.

There has been no change.

Funded Debt—Equipment Trust.

To aid in paying for the seven Mountain Type locomotives and seventeen passenger train steel cars acquired during the year, your Company on January 24, 1921, borrowed from United States Government \$237,900.00 payable in fifteen annual installments, 1922 to 1936, inclusive, with interest at 6% per annum; and on February 1, 1921, issued its Equipment Trust M and sold \$650,000.00 of Equipment Trust Certificates maturing in eleven

annual installments, 1926-1936, inclusive, with interest at 6½% per annum, payable semi-annually.

Other Indebtedness

Non-negotiable debt to affiliated companies increased \$3,399,923.50; all due to Ocean Steamship Company of Savannah.

Loans and bills payable decreased \$543,280.00.

Current Liabilities decreased \$2,148,374.93.

Your Company has no floating debt.

Dividends

During the year preferred dividends Nos. 16 and 17 (total \$900,000), at the stipulated rate of six per cent per annum, and common dividends Nos. 11 and 12 (total \$250,000) at the rate of five per cent per annum, were declared and paid.

Valuation

Under the Valuation Act, the Interstate Commerce Commission has reported a tentative final value for the railway property operated by your company of \$79,083,523.00. While this exceeds not only the capitalization but the book values, your directors, being of opinion that it is less than the actual value of the property, filed protests. Testimony and briefs have been submitted, and the question is now before the Commission for final action.

PHYSICAL CHANGES

Roadway and Structures:

37,057.2 miles of track were relaid with 90 pound new steel rail, of which 5,618.6 miles were relaid with new steel rail of the same weight; 2,258.8 miles of track relaid with second hand steel rail replacing rail of lighter pattern; and 3,608.9 miles of track relaid with second hand steel rail replacing rail of same pattern; total mileage of track relaid with new and second hand steel rail was 42,924.9.

Work was begun in the early part of the year on the construction in Jefferson County, Alabama of a line to be known as the Cahaba District, approximately seven miles in length, extending from McCombs, Alabama, in a southwesterly direction along the eastern slope of Shades Mountain. This line will serve the Bragg and Class Seams, situated in what is commonly known as the Waterworks Basin of the Lower Cahaba Coal Fields. Tipples layouts to serve both of these coal seams will be located near the Cahaba River. Work was started on April 7, 1921, and the line has been fully completed for a distance of four miles from McCombs.

Seven new Mountain Type locomotives were added during the year. One locomotive of an obsolete type was sold. Ten Mikado type locomotives were leased from the Illinois Central, making an increase of six locomotives owned and ten locomotives leased, with an increase of 845,770 pounds in tractive power.

Seventeen modern all steel passenger train cars were purchased from The Pullman Company consisting of four sleeping cars, five open coaches, four partition coaches and four baggage and express cars.

Superheaters, valve gears, piston valves and other improvements were applied to five locomotives.

There were no freight train cars acquired; 414 freight and work cars were sold, destroyed or retired, and four freight train cars were converted to work equipment. The average capacity of freight train cars at the close of the year was 38.8 tons, and the total capacity was 323,700 tons.

One consolidated locomotive was converted to Mikado type.

The Board takes pleasure in acknowledging the fidelity, efficiency and united efforts displayed by your officers and employees in the discharge of their duties.

By order of the Board of Directors.

CHARLES H. MARKHAM,

Chairman of Board.

CENTRAL OF GEORGIA RAILWAY COMPANY

Income Statement

Year Ended December 31

	1921	Per Cent of Total Operating Revenues	1920	+ Increase — Decrease
Aver. miles operated.	1,913.63	....	1,913.63	.....
Railw. Operat. Revs.:				
I. Transportation—				
Rail Line:				
101. Freight	\$14,565,643.79	66.03	\$12,930,928.57	+\$1,634,715.22
102. Passenger	5,483,676.31	24.86	5,728,246.36	— 244,570.05
103. Excess baggage ..	38,117.94	.17	32,090.73	+ 6,027.21
104. Sleeping car...	147,828.28	.67	172,853.08	— 25,024.80
105. Par. and ch. car ..	16,844.24	.08	22,998.23	— 6,153.99
106. Mail	454,847.87	2.06	470,410.32	— 15,562.45
107. Express	459,989.01	2.09	489,307.26	— 29,318.25
108. Other pass. tr.	6,433.40	.03	7,305.23	— 871.83
109. Milk	19,155.30	.09	15,813.97	+ 3,341.33
110. Switching	242,001.15	1.10	221,957.02	+ 20,044.13
111. Special serv. tr.	18,778.85	.08	28,648.75	— 9,869.90
Total	\$21,453,316.14	97.26	\$20,120,559.52	+\$1,332,756.62
III. Incidental:				
131. Din. and buff.	\$75,721.06	.34	\$37,136.81	+ 38,584.25
132. Hotel and rest.	4,239.96	.02	2,893.39	+ 1,346.57
133. Station tr. and boat privileges.	44,628.96	.20	38,753.64	+ 5,875.32
134. Parcel room...	637.80	....	716.52	— 78.72
135. Storage—Fr't ..	190,181.99	.86	151,505.89	+ 38,676.10
136. Stor.—baggage ..	1,550.63	....	1,380.82	+ 169.81
137. Demurrage	62,796.02	.29	110,342.29	— 47,546.27
141. Power	3,878.53	.02	2,562.69	+ 1,315.84
142. Rents of bldgs. and other prop.	5,551.01	.03	1,305.88	+ 4,245.13
143. Miscellaneous ..	181,019.47	.82	173,050.88	+ 7,968.59
Total	\$570,205.43	2.58	\$519,648.81	+\$50,556.62
IV. Joint Facility:				
151. Joint fac.—Cr.	\$34,006.70	.16	\$36,266.24	— \$2,259.54
152. Joint fac.—Dr.	*29.69	....	76.48	— 106.17
Total	\$33,977.01	.16	\$36,342.72	— \$2,365.71
Total railway operating revs.	\$22,057,498.58	....	\$20,676,551.05	+\$1,380,947.53

	Year Ended December 31			
	1921	Per Cent of Total Operating Revenues	1920	+ Increase — Decrease
Railw'y Operat. Exp.:				
201-279. Maint'ce of way and struct.	\$3,449,358.35	15.64	\$4,105,356.85	— \$655,998.50
301-337. Maint. of equipment	4,711,701.60	21.36	5,047,749.43	— 336,047.83
351-359. Traffic	778,475.70	3.53	550,925.44	+ 227,550.26
371-420. Transporta. —rail line	10,052,517.47	45.57	10,512,060.77	— 459,543.30
441-446. Misc. opera.	87,677.55	.40	43,877.59	+ 43,799.96
451-462. General ...	950,019.02	4.31	852,654.69	+ 97,364.33
471. Transp. for investment—Cr.	*8,907.12	*.04	*10,256.27	+ 1,349.15
Total railway operating exp..	\$20,020,842.57	90.77	\$21,102,368.50	—\$1,081,525.93
Net revenue from railway operations.	\$2,036,656.01	9.23	*\$425,817.45	+\$2,462,473.46
532. Rail. tax accru.	\$899,875.21	4.08	\$795,151.18	+ \$104,724.03
533. Uncol. rail. rev.	46,588.39	.21	5,584.69	+ 41,003.70
Rail. operat. income	\$1,090,192.41	4.94	*\$1,226,553.32	+\$2,316,745.73
Railway operating income —brought forward.....	\$1,090,192.41		*\$1,226,553.32	+\$2,316,745.73
Additions to Railway Oper- ating Income:				
503. Hire of freight cars— credit balance	\$235,492.89		\$184,620.85	+ \$50,872.04
504. Rent from locomotives	22,343.57		30,028.44	— 7,684.87
505. Rent from passenger train cars	90,954.64		21,684.33	+ 69,270.31
507. Rent from work equipment	9,416.05		6,972.04	+ 2,444.01
508. Joint facility rent in- come	50,321.75		36,250.26	+ 14,071.49
Total additions to rail- way operating income	\$408,528.90		\$279,555.92	+ \$128,972.98
Deductions from Railway Operating Income:				
537. Rent for locomotives	\$18,534.27		\$24,017.32	— \$5,483.05
538. Rent for passenger train cars	102,693.27		50,274.93	+ 52,418.34
540. Rent for work equip- ment	1,802.92		1,676.41	+ 126.51
541. Joint facility rents..	155,035.51		119,831.63	+ 35,203.88
Total deductions from railway operating in- come	\$278,065.97		\$195,800.29	+ \$82,265.68
Net railway operating income ("Standard Return")	\$1,220,655.34		*\$1,142,797.69	+\$77,857.65
Non-operating Income:				
502. Revenues from mis- cellaneous operations	\$41,888.89		\$51,914.33	— \$10,025.44
509. Income from lease of road (Note 1).....	45,299.64		778,192.41	— 732,892.77
510. Miscellaneous rent in- come	107,062.11		104,003.65	+ 3,058.46
511. Miscellaneous non- operating physical property	25,968.43		18,850.22	+ 7,118.21
513. Dividend income ...	432,639.25		1,477,825.50	— 1,045,186.25
514. Income from funded securities	127,655.66		114,239.76	+ 13,415.90
515. Income from un- funded securities and accounts	36,413.32		*35,226.73	+ 1,186.59
519. Miscellaneous income, (Note 2)	101,496.75		3,112,368.41	— 3,010,871.66
Total non-operating income	\$918,424.05		\$5,622,167.55	—\$4,703,743.50
Gross income	\$2,139,079.39		\$4,479,369.86	—\$2,340,290.47
Deductions from Gross In- come:				
534. Expenses of miscel- laneous operations...	\$37,444.68		\$43,145.87	— \$5,701.19
542. Rent for leased roads	371,422.47		370,283.66	+ 1,138.81
543. Miscellaneous rents..	135,887.49		135,827.81	+ 59.68
546. Interest on funded debt	2,329,290.09		2,286,333.75	+ 42,956.34
547. Interest on unfunded debt	151,029.28		80,413.01	+ 70,616.27
548. Amortization of dis- count on funded debt	33,891.31		31,570.39	+ 2,320.92
551. Miscellaneous income charges	59,927.69		15,087.92	+ 44,839.77
Total deductions from gross income	\$3,118,893.01		\$2,962,662.41	+\$156,230.60
Net income	*\$979,813.62		\$1,516,707.45	—\$2,496,521.97

Note 1. 1920 figures include compensation from United States Railroad Administration for January and February, 1920.

Note 2. 1920 figures include claim against United States Government under Guaranty provision, Transportation Act, 1920.

*Denotes credit or deficit as may be appropriate.

[ADVERTISEMENT]

Cleveland, Cincinnati, Chicago and St. Louis—Thirty-third Annual Report

To the Stockholders of

THE CLEVELAND, CINCINNATI, CHICAGO AND ST. LOUIS RAILWAY COMPANY:
The Board of Directors herewith submits its report for the year ended December 31, 1921, with statements showing the income account and the financial condition of the company.

Road operated

The mileage covered by this report is as follows:

	1921 Miles	1920 Miles	Decrease Miles
Main line and branches owned.....	1,691.78	1,693.03	1.25
Proprietary line.....		.78	.78
Leased lines.....	205.10	205.10	
Lines operated under contract.....	326.68	326.68	
Lines operated under trackage rights...	187.31	195.86	8.55
Total road operated.....	2,410.87	2,421.45	10.58

Traffic conditions

The year 1921 was one of business depression, reflected in the decreased freight and passenger traffic of the company. The tonnage fell off in volume 22 per cent and the passenger traffic 20.4 per cent, as compared with 1920. This situation was met by economies in operation.

In co-operation with the federal government in its effort to lower costs of foodstuffs, voluntary decreases in rates on certain agricultural products were put in effect during the year. There was no general reduction in other freight rates, but adjustments were made from time to time to remove inequalities. The company has co-operated with State authorities in a readjustment of rates on roadmaking material for the purpose of stimulating the building of good roads and to meet the unemployment situation.

There was no general readjustment of passenger rates, but the practice which obtained prior to federal control of putting into effect reduced excursion rates during the summer months was re-established to some extent.

Account with Railroad Administration

The company's account with the Railroad Administration covering the period of federal control will be completed in the early part of 1922.

Claim against United States upon the guaranty

The company's claim against the United States based upon its guaranty for the period March-August, 1920, is approaching completion. It has been necessary to restate this claim several times in accordance with tentative formulas. It will be ready for presentation in the early part of 1922.

Loans and bills payable

The following demand notes appear on the balance sheet:

The New York Central Railroad Company.....	\$4,000,000
Director General of Railroads.....	3,500,000
Total	\$7,500,000

The \$4,000,000 demand note was given to The New York Central Railroad Company in 1920 in renewal of the unpaid balance of notes theretofore given to that company from time to time for money borrowed to provide additions and betterments. This note is secured by \$4,189,000 of this company's refunding and improvement mortgage bonds, series A, issued (nominally) in 1920 for that purpose, the note, with such collateral, being pledged as part of the collateral security for the loan made to The New York Central Railroad Company by the United States under section 210 of the Transportation Act.

The indebtedness of \$3,425,000 to banks and trust companies, included in the list of loans and bills payable in the annual report for 1920, was paid during 1921. During the year the company gave to the Director General of Railroads, in reduction of its indebtedness to him for additions and betterments during federal control, its demand note, above referred to, for \$3,500,000, thereby correspondingly decreasing the amount due him for additions and betterments.

Issue and retirement of securities

Additional notes amounting to \$65,800 were issued under the equipment trust known as Equipment Trust No. 44 and given to the Director General of Railroads in connection with final settlement for the equipment allocated to the company during the period of federal control and described in the annual report for 1920. The total cost of the equipment was \$6,937,706.50, of which \$5,195,800 was financed by equipment notes.

In June, 1921, the company issued \$1,052,600 of its 20-year 6 per cent refunding and improvement mortgage bonds, series C, in the refunding of prior lien bonds, paid or acquired by the company, as follows:

\$567,000, principal amount, of first consolidated mortgage bonds of the Cincinnati, Indianapolis, St. Louis and Chicago Railway Company due May 1, 1920;	
\$158,000, principal amount, of general first mortgage bonds of the Cincinnati, Indianapolis, St. Louis and Chicago Railway Company due August 1, 1936;	
\$327,600, principal amount, of 5 per cent general mortgage bonds of this company due June 1, 1993.	
The disposition made of these bonds is stated on another page.	
During the year the company's notes of a maturity of more than two years, equipment trust obligations and mortgage bonds were increased as follows:	
Equipment Trust No. 44 of January 15, 1920, additional notes	\$65,800.00
Twenty-year refunding and improvement mortgage bonds of the C. C. & St. L. Ry. Co., series C, 6 per cent.....	1,052,600.00
	\$1,118,400.00

The following bonds were retired during the year:

C. I., St. L. & C. Ry. Co., general first mortgage bonds retired	\$77,000.00
C. C. & St. L. Ry. Co. (St. Louis Division) first collateral trust mortgage bonds purchased for sinking fund.....	52,000.00
Central Grain Elevator Co. bonds retired.....	25,000.00
	154,000.00

Payments falling due during the year and on January 1, 1922, on the company's liability for principal installments under equipment trust agreements were made as follows:

N. Y. C. Lines Trust of 1907, installment due November, 1921.....	\$246,689.81
N. Y. C. Lines Trust of 1910, installment due January, 1922	199,625.82
N. Y. C. Lines Trust of 1912, installment due January, 1922	159,890.20
N. Y. C. Lines Trust of 1913, installment due January, 1922	116,733.71
Big Four Railway Trust of 1914, installment due June, 1921	373,000.00
Big Four Railway Trust of 1915, installment due July, 1921	115,000.00

Big Four Railway Trust of 1917, installment

due June, 1921.....	237,000.00
Equipment Trust No. 44 of January 15, 1920, notes due January, 1921.....	342,000.00
C. C. & St. L. Ry. Co. proportion of N. Y. C. R. R. Co., Equipment Trust of April 15, 1920, certificates, due April, 1921.....	761,111.40
	2,551,050.94

Serial note of the C. C. & St. L. Ry. Co., given to the

N. Y. C. R. R. Co., due December 23, 1921, paid at maturity	262,933.34
There were nominally issued during the year and pledged as collateral for a demand note for \$3,500,000 given to the Director General of Railroads \$3,500,000 of this company's refunding and improvement 6 per cent mortgage bonds, series A, \$811,000; series B, \$2,689,000.	

Acquisition of European Loan Bonds

With additional purchases in 1921, the company's holdings of European Loan bonds at the end of the year amounted to 35,415,500 francs, equivalent at the normal rate of exchange (5.1813 francs to the dollar) to \$6,835,253.70. The total cost of these bonds was \$3,318,839.58.

Purchase of capital stock of the Evansville, Indianapolis and Terre Haute Railway Company

During the year this company exercised its option, referred to in the annual report for 1920, to acquire the entire capital stock of the Evansville, Indianapolis and Terre Haute Railway Company by paying therefor on June 14, 1921, \$1,052,600 principal amount of its 6 per cent refunding and improvement mortgage bonds, series C, due 1941, carrying interest from January 1, 1921, these bonds being taken at 95, and \$30 in cash. The settlement with the interests formerly controlling the Evansville, Indianapolis and Terre Haute Railway Company was made as of November 1, 1920, and since that date the road has been operated by that company in the interest of this company as sole stockowner.

Stock of the Cincinnati Northern Railroad Company

During the year the company acquired 700 shares, par value \$70,000, of the capital stock of the Cincinnati Northern Railroad Company, making the total shares in that company now owned by this company 17,774, or 59.25 per cent of the total shares outstanding.

Proposed purchase of income bonds and capital stock of The Peoria and Eastern Railway Company

There are outstanding \$4,000,000 of income mortgage 4 per cent non-cumulative bonds of The Peoria and Eastern Railway Company, due April 1, 1990, and \$9,994,200 of the capital stock of that company, not including \$800 of such stock nominally issued, but held in that company's treasury, and \$5,000 not issued, but reserved for exchange for the stock of The Ohio, Indiana and Western Railway Company, predecessor of the Peoria and Eastern Railway Company. By resolutions adopted by this company's Board of Directors on December 14, 1921, the company authorized an offer, subject to the approval of the Interstate Commerce Commission, to purchase income bonds and stock of The Peoria and Eastern Railway Company, paying therefor in 4½ per cent first mortgage bonds of The Evansville, Mt. Carmel and Northern Railway Company (of which \$2,118,000 are now in the treasury of this company), to be guaranteed by this company, on the basis of one \$1,000 Mt. Carmel bond for three \$1,000 Peoria and Eastern income mortgage bonds, and one \$1,000 Mt. Carmel bond for sixty shares (par value \$100 each) of the capital stock of The Peoria and Eastern Railway Company. Applications for authority to acquire these Peoria and Eastern securities, or such part thereof as may be offered on the above terms, and to guarantee Mt. Carmel bonds to be used for that purpose are pending before the Interstate Commerce Commission.

SUMMARY OF FINANCIAL OPERATIONS AFFECTING INCOME

	Year ended Dec. 31, 1921 2,410.87 miles operated	Year ended Dec. 31, 1920 2,421.45 miles operated	Increase Decrease 10.58 miles
Operating Income—			
Railway Operations:			
Railway operating revenues..	\$79,793,593.13		
Railway operating expenses..	64,406,122.34		
Net revenue from railway operations	\$15,387,470.79		
Percentage of expenses to revenues	(80.72)		
Railway tax accruals.....	\$3,982,289.42		Items not shown are not Comparable. See note A
Uncollectible railway revenues	6,475.11		
Railway operating income.....	\$11,398,706.26		
Equipment rents, net debit..	\$723,356.65		
Joint facility rents, net debit..	575,057.31		
Net railway operating income.....	\$10,100,292.30	\$11,829,375.54A	—\$1,729,083.24
Miscellaneous Operations:			
Revenues	\$29,703.42	\$27,480.19	\$2,223.23
Expenses and taxes.....	25,837.75	24,241.34	1,596.41
Miscellaneous operating income	\$3,865.67	\$3,238.85	\$626.82
Total operating income....	\$10,104,157.97	\$11,832,614.39	—\$1,728,456.42
Other Income—			
Additional compensation under contract with Director General of Railroads for use of the company's railroad property during federal control.....	\$117,693.70		\$117,693.70
Miscellaneous rent income....	366,818.69	\$257,544.45	109,274.24
Miscellaneous non-operating physical property	188,411.82	157,995.48	30,416.34
Dividend income	112,853.90	70,705.90	42,148.00
Income from funded securities	346,311.62	318,492.54	27,819.08
Income from unfunded securities and accounts.....	325,676.98	810,281.07	—484,604.09
Release of premiums on funded debt	1,322.75	1,479.85	—157.10
Miscellaneous income	53,130.79*n	170,267.49c	—223,398.28
Total other income.....	\$1,405,958.67	\$1,786,766.78	—\$380,808.11
Gross income	\$11,510,116.64	\$13,619,381.17	—\$2,109,264.53

Deductions from Gross Income—			
Rent for leased roads.....	\$465,283.70	\$235,267.08	\$230,016.63
Miscellaneous rents.....	434,182.13	146,613.00	287,569.13
War taxes accrued.....		164,200.00	—164,200.00
Miscellaneous tax accruals..	14,400.00	25,580.00	—11,180.00
Separately operated properties—loss	236,759.48	56,566.93	180,192.55
Interest on funded debt....	6,421,907.20	5,957,003.16	464,904.04
Interest on unfunded debt..	1,119,890.21	680,838.22	439,051.99
Amortization of discount on funded debt	146,038.92	128,693.67	17,345.25
Maintenance of investment organization	328.17	254.01	74.16
Corporate general expenses..		36,359.88	—36,359.88
Miscellaneous income charges.	258,621.67†	299,226.07c	—557,847.74
Total deductions from gross income	\$8,580,168.14	\$7,730,602.02	\$849,566.12
Net income.....	\$2,929,948.50	\$5,888,779.15	—\$2,958,830.65
Disposition of Net Income—			
Dividends declared (5 per cent each year on preferred capital stock)	\$499,925.00	\$499,925.00	.....
Sinking funds	37,216.79	35,174.00	\$2,042.79
Investment in physical property	66,189.93	30,341.41	35,848.52
Total appropriation of income	\$603,331.72	\$565,440.41	\$37,891.31
Surplus for the year carried to profit and loss.....	\$2,326,616.78	\$5,323,338.74	—\$2,996,721.96

A—Includes compensation accrued under contract with Director General, January and February, Guaranty under Transportation Act, 1920, March to August, and net railway operating income—corporate—September to December.

B—Includes accrual account Guaranty under Transportation Act, 1920.

C—1920 figures revised to include revenues and expenses prior to January 1, 1918.

D—War taxes for 1921, included in Railway tax accruals.

*Debit. †Credit.

Profit and loss account

Balance to credit of Profit and Loss, December 31, 1920....	\$16,235,252.16
Additions:	
Surplus for the year 1921.....	\$2,326,616.78
Damage award in connection with the relocation of line between Dayton and Enon, Ohio-Miami Conservancy District.....	326,292.00
Accumulated unrefundable overcharges....	149,326.58
Sales of land.....	44,607.81
Reacquisition of securities below par....	27,203.70
Unclaimed wages and pensions, 1915.....	2,078.74
	2,876,125.61
	\$19,111,377.77
Deductions:	
Road property abandoned.....	\$138,012.91
Unaccrued depreciation prior to July 1, 1907, on equipment retired during 1921..	70,686.25
Adjustments of sundry accounts (net)...	16,719.53
	225,418.69
Balance to credit of Profit and Loss, December 31, 1921....	\$18,885,959.08

Operating expenses

In arriving at the railway operating income for the guaranty period, the Transportation Act required that the maintenance allowance should be fixed with reference to the standards and price levels of the test period. The company worked out a tentative factor which resulted in charges to maintenance in excess of actual expenditures and the carrying forward of a reserve at the end of 1920. This factor, however, has proved to be larger than the government is likely to accept. Therefore, entries were made in December, 1921, closing out balances in the maintenance reserves which had been accumulated in 1920; and as operating expenses for that year had been over-accrued by the amount of the reserves, it was necessary to adjust operating expenses in 1921 to offset the overcharge and preserve the continuity of the accounts. In making this adjustment the amount tentatively charged against the government for guaranty period operations was reduced, and a corresponding charge was made against non-operating income, as a result of which the net corporate income for 1921 was not affected.

The operating expenses, for 1921, by groups, as compared with those for 1920, eliminating these adjustments, were as follows:

	Amount	Decrease
Maintenance of way and structures.....	\$11,163,218.04	\$1,398,577.74*
Maintenance of equipment.....	18,513,987.91	783,980.67
Traffic	1,276,151.28	4,029.34
Transportation	33,005,070.53	6,025,787.61
Miscellaneous operations	686,087.51	71,315.12
General	1,994,018.16	103,097.59*
Transportation for investment—Cr.....	41,344.44	61,241.89*
	\$66,597,188.99	\$5,322,195.52

*Increase.

The decrease in operating expenses reflects the falling off in traffic, the economies effected by the company during the year, and the reduction in wages and in costs of material and fuel.

Changes in organization

On June 15, 1921, Mr. Albert H. Harris was elected a Director to fill the vacancy caused by the resignation on April 13, of Mr. William C. Brown.

On October 26, 1921, Mr. Frank J. Jerome was elected a Director to fill the vacancy caused by the resignation on February 9, of Mr. Samuel Mather.

Appreciative acknowledgment is made to all officers and employees of their loyal and efficient co-operation and service.

For the Board of Directors,

ALFRED H. SMITH, President.

[ADVERTISEMENT]

Railway Officers

Executive

Stanton Ennes, vice-president and general manager of the Wheeling & Lake Erie, has been elected president and general manager, succeeding W. M. Duncan who has been elected chairman of the board of directors.

Financial, Legal and Accounting

W. E. Rodwell has been appointed car accountant of the Seaboard Air Line with headquarters at Portsmouth, Va.

James C. Rogers, general paymaster of the Pennsylvania and president of the Veteran Employees' Association of the general offices at Philadelphia, retired from service on June 30 after having served the company continuously for 52 years and 8 months.

H. A. Toland, a former assistant auditor of the Oregon Short Line at Salt Lake City, Utah, and engaged for the past two years in the New York office of the Union Pacific, has been appointed auditor of that road, with headquarters at Omaha, to succeed H. J. Sterling, resigned.

Operating

C. B. Packer, car accountant of the Seaboard Air Line with headquarters at Portsmouth, Va., has been appointed assistant superintendent of transportation.

O. F. Brookmeyer has been appointed superintendent of passenger transportation of the Cleveland, Cincinnati, Chicago & St. Louis and the Peoria & Eastern with headquarters at Indianapolis, Ind.

A. S. Payne has been appointed superintendent of the Shenandoah division of the Norfolk & Western with headquarters at Roanoke, Va., and W. B. Houchins has been appointed superintendent of terminals at Roanoke.

J. F. Lord, who was reported in the *Railway Age* of June 17, page 1514, as superintendent of safety and fire prevention of the Chicago Great Western pursuant to the abolishment of this title and his appointment to the newly created position of assistant to general manager, holds this position in the service of the Chicago & Eastern Illinois instead of the Chicago Great Western.

John J. Scully, general superintendent of the Algoma district of the Canadian Pacific with headquarters at North Bay, Ont., has been appointed general manager, Eastern lines, with headquarters at Montreal, succeeding Alfred Price who, after a service of more than 40 years has, at the advice of his physicians, been granted an indefinite leave of absence. George Hodge, assistant to the vice-president, Eastern lines, has been appointed assistant general manager. W. M. Neal, assistant general superintendent of the Ontario district with headquarters at Toronto, has been appointed general superintendent at North Bay.

W. M. Wardrop has been appointed general superintendent of the Southern division of the Pennsylvania with headquarters at Wilmington, Del., succeeding the late Gamble Latrobe. Mr. Wardrop has heretofore been general superintendent of the Michigan division (G. R. & I.) at Grand Rapids, Mich. J. B. Hutchinson, Jr., has been appointed general superintendent of the Michigan division at Grand Rapids. Mr. Hutchinson has heretofore been general superintendent of the Toledo division, at Toledo, Ohio. T. A. Roberts, acting superintendent of the Ft. Wayne division, with headquarters at Ft. Wayne, Ind., has been appointed general agent at Detroit, Mich., and superintendent of the Toledo division, at Toledo, Ohio. R. H. Pinkham has been appointed superintendent of the Ft. Wayne division, at Ft.

Wayne, Ind. Mr. Pinkham has heretofore been superintendent of the Norfolk division, at Cape Charles, Va. **F. D. Davis**, division engineer of the New York division, has been appointed superintendent of the Norfolk division, with headquarters at Cape Charles, Va.

Traffic

George W. Koonce has been appointed division freight agent of the Pennsylvania, with headquarters at Canton, Ohio, and **Stephen T. Stackpole**, division freight agent at Buffalo, N. Y., has been transferred in the same capacity to Detroit, Mich.

J. A. Sullivan, division freight agent of the Wabash, with headquarters at Detroit, Mich., has been promoted to the newly created position of assistant general freight agent, with the same headquarters, pursuant to the establishment of general freight and passenger offices in that city.

Engineering, Maintenance of Way and Signaling

W. G. Morgan, assistant engineer of the Kansas City Southern with headquarters at Pittsburg, Kan., has been promoted to the re-established position of division engineer of the Kansas City Terminal division with headquarters at Kansas City, Mo., effective July 1.

J. G. Bloom, whose promotion to the newly created position of engineer, maintenance of way, system, of the Chicago, Rock Island & Pacific with headquarters at Chicago, was reported in the *Railway Age* of May 20, page 1204, was born in Ohio on November 25, 1869, and studied engineering at Ohio State University. Immediately following his graduation in 1889, he entered railway service as a chainman on the Pennsylvania at Cincinnati, Ohio. After a few months, he left railway service and in the spring of 1890 became associated with the Kenova Land Association as an assistant engineer at Kenova, W. Va., but re-entered railway service that fall as an assistant supervisor on the Norfolk & Western at Crewe, Va., where he remained until April, 1892. Becoming an assistant engineer on the Baltimore & Ohio Southwestern on the latter date with headquarters at Cincinnati, Ohio, he served consecutively in this capacity until November, 1895; as a division engineer at Flora, Ill., until June, 1896, as principal assistant engineer at Cincinnati, Ohio, until February, 1900, and thereafter as division engineer first at Chillicothe, Ohio, and later at New Castle, Pa., until June, 1903, when he entered the service of the Chicago, Rock Island & Pacific as district engineer, with headquarters at Topeka, Kan. Thereafter he served as district engineer until July, 1905, as engineer maintenance of way of the Southwestern & Choctaw district at Topeka until February, 1907, and again as district engineer until December, 1909, when he left railway service to become president of the Southern Ballast Company at Denison, Texas. He was engaged in this work until July, 1912, and then as superintendent of construction of the John F. Stevens Construction Company, New York, until October, 1914, when he re-entered the service of the Chicago, Rock Island & Pacific. Thereafter he was engaged in valuation work with headquarters at Chicago until July, 1916; as superintendent of the Amarillo division with headquarters at Amarillo, Texas, until August, 1918; as superintendent of the Louisiana division with headquarters at Eldorado, Ark., until May, 1921; and as division



J. G. Bloom

engineer of the Nebraska-Colorado division with headquarters at Fairbury, Neb., until May 15, 1922, when he was promoted to engineer maintenance of way, system.

Obituary

S. B. Rice, engineer maintenance of way of the Richmond, Fredericksburg & Potomac, died on June 26.

Martin S. Decker, former public service commissioner of the State of New York, died in New York City on July 1 at the age of 60. Mr. Decker's home was in Albany, N. Y., and he was in New York City on a visit. He was born at Rosendale, N. Y., and in early life was a railroad telegraph operator. He was for many years assistant secretary of the Interstate Commerce Commission, at Washington. He was appointed a member of the Public Service Commission by Governor Charles E. Hughes when the commission was organized under the new law, in 1907, and continued a member of that board for six years. He served two terms as president of the National Association of Railway Commissioners.

William C. Arp, retired superintendent of motive power of the Vandalia (now a part of the Pennsylvania), whose death on June 16 was reported in the *Railway Age* of July 1, page 48, was born on June 30, 1848, near Williamsport, Pa., and entered railway service as a machinist's apprentice on the Northern Central (now a part of the Pennsylvania) at Williamsport. Following his apprenticeship he engaged in stationary engine and mill work at Williamsport until 1875, when he was advanced to roundhouse foreman. He continued thereafter as roundhouse foreman and as foreman of engines of the Middle division until 1883, when he was promoted to general foreman of shops of the Pennsylvania lines west of Pittsburgh, at Indianapolis, Ind. In 1886 he became roundhouse foreman of the Pennsylvania, at Columbus, Ohio, and a year later was promoted to master mechanic at Logansport, Ind. He served later in the same capacity at Dennison, Ohio, until January 15, 1896, when he was promoted to superintendent of motive power of the Terre Haute & Indianapolis, a position he continued to hold following the acquisition of this property by the Vandalia until the date of his retirement in 1918.

Cornelius P. Torrey, superintendent of freight transportation of the Hocking Valley, with headquarters at Columbus, Ohio, whose death on June 9 was reported in the *Railway Age* of June 24, was born on October 25, 1852, at Coshocton, Ohio. He completed his course of study in the high school of that city, following which he devoted some time to various occupations until December 1, 1885, when he entered railway service as a yard clerk for the Hocking Valley. From his initial position as yard clerk, Mr. Torrey worked his way consecutively through various other clerical and administrative positions in the operating and transportation departments of the Hocking Valley and on February 10, 1914, after 29 years of service was appointed acting superintendent of freight transportation to relieve T. R. Limer, granted a leave of absence on account of illness. Thereafter Mr. Torrey continued as acting superintendent of freight transportation until July 10, 1914, following Mr. Limer's death, when he was promoted to superintendent of freight transportation, the position in which he continued in an active capacity until the time of his death as noted above.



C. P. Torrey